BRIGHAM YOUNG UNIVERSITY

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Annual Catalog Issue

1956-57

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Brigham Young University Bulletin

CATALOG OF COURSES

1956-57

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University Calendar

1956-57

Autumn Quarter

September 13, 14, 15 (Thursday, Friday, Saturday): Utah Conference on Higher Education.

September 18, 19 (Tuesday, Wednesday): Faculty Workshop and First Regular Faculty Meeting.

September 19, 20, 21, 22 (Wednesday, Thursday, Friday, Saturday), 8:00 a.m.: Orientation and placement tests for all freshmen and sophomores who will register at B.Y.U. for the first time. Late fees will be charged for all new students who fail to appear for orientation and placement tests at 8:00 a.m. Wednesday.

September 24, 25 (Monday, Tuesday) 8:00 a.m.: Registration for all regular and special students. Students will register in an alphabetical order to be announced. A late fee will be charged all students registering after this date.

September 26 (Wednesday): Class instruction begins.

October 1 (Monday): Students who register later than October 1 will have their transcripts of credit re-examined by the University to aid in determining the number of credit hours for which they will be permitted to register. 2-19

1 **October 8 (Monday):** Last day for currently enrolled students to enter new classes. 2 mo.

1-10

-15 **November 2 (Friday):** Last day on which currently enrolled students may drop classes without receiving a passing or failing grade. 20

-19

November 3 (Saturday): Homecoming.

November 16 (Friday): Students withdrawing from school after this date must be doing passing work in each class if they are to be discontinued without academic failure.

November 22, 23 (Thursday, Friday): Thanksgiving recess.

December 10, 11, 12 (Monday, Tuesday, Wednesday): Examination period.

December 12 (Wednesday): Autumn Quarter closes.

Winter Quarter

January 2 (Wednesday): Students registering after this date will pay a late fee and will be subject to a reduced registration load.

January 3 (Thursday): Class instruction begins.

January 7 (Monday): Following this date, no student will be permitted to register without special approval from the Dean of his College, following a careful re-examination of the student's academic records.

January 11 (Friday): Last day for currently enrolled students to enter new classes.

February 8 (Friday): Last day on which currently enrolled students may drop classes without a passing or a failing grade.

February 22 (Friday): Students withdrawing from school after this date must be doing passing work in each class if they are to be discontinued without academic failuure.

March 12, 13, 14 (Tuesday, Wednesday, Thursday): Examination period.

March 14 (Thursday): Winter Quarter closes.

Spring Quarter

March 19 (Tuesday): Registration for all students. A late fee will be charged all students registering after this date.

March 20 (Wednesday): Class instruction begins.

March 25 (Monday): Students who register later than March 25 will have their transcripts of credit re-examined by the University to aid in determining the number of credit hours for which they will be permitted to register.

March 29 (Friday): Last day for currently enrolled students to enter new classes.

April 26 (Friday): Last day on which currently enrolled students may drop classes without a passing or a failing grade.

May 6 (Monday): Students desiring to enter the summer session who have not previously attended B.Y.U. should submit their application for admission on or before May 6.

May 10 (Friday): Students withdrawing from school after this date must be doing passing work in each class if they are to be discontinued without academic failure.

May 25 (Saturday): Senior Day.

midterm Spring – april 24.

last day school year.

May 28, 29, 30 (Tuesday, Wednesday, Thursday): Examination Period.

May 30 (Thursday): Baccalaureate Services.

May 31 (Friday): Alumni Day.

May 31 (Friday evening): Eighty-second Commencement Exercises.

Summer Quarter

June 10 (Monday): Registration for the Summer Quarter.

All undergraduate colleges and the Graduate School offer a full quarter of work in the summer.

The summer quarter is divided into terms so that in special cases students may be in attendance only part of the summer, if they desire, without hindrance to the completion of their courses. Both regular terms of the summer quarter are held on the Provo campus.

The summer quarter provides the opportunity for persons who are employed during the usual nine months of schooling to pursue graduate work. It provides regular students the opportunity to complete requirements for graduation in a shorter time than four years. All facilities of the University are available during the summer quarter.

June 24, 25, 26, 27, 28 (Monday, Tuesday, Wednesday, Thursday, Friday): 1957 Leadership Week.

Prob. Grades

Senior 2.
Jr. - 2.
Soph - 1.7
Fresh 1.5

Administration and Faculty

General Administrative Officers

Board of Education of the Church of Jesus Christ of Latter-day Saints and Board of Trustees of Brigham Young University

DAVID O. McKAY	President
STEPHEN L RICHARDS	First Vice-President
J. REUBEN CLARK, JR.	Second Vice-President

JOSEPH FIELDING SMITH
HAROLD B. LEE
SPENCER W. KIMBALL
EZRA TAFT BENSON
MARK E. PETERSEN
HENRY D. MOYLE
DELBERT LEON STAPLEY
MARION G. ROMNEY
LeGRAND RICHARDS
ADAM S. BENNION
RICHARD L. EVANS
GEORGE Q. MORRIS

Executive Committees of Church Board of Education and Brigham Young University Board of Trustees

JOSEPH FIELDING SMITH
HAROLD B. LEE
HENRY D. MOYLE
MARION G. ROMNEY
ADAM S. BENNION
ERNEST L. WILKINSON

Administrative Officers

ERNEST L. WILKINSON, Administrator of Board of Education and President of Brigham Young University

HARVEY L. TAYLOR, Executive Assistant to the President

WILLIAM E. BERRETT, Vice-President in Charge of Religious Education

WILLIAM F. EDWARDS, Vice-President in Charge of Finance and Business Administration

CLYDE D. SANDGREN, Secretary of Board of Trustees, Board of Education, and Executive Committees; and General Counsel and Secretary for Church School System

University General Administrative Officers

President	Ernest L. Wilkinson
Executive Assistant to the President	Harvey L. Taylor
Vice President in Charge of Finance and Business Administration	William F. Edwards
Treasurer	Kiefer B. Sauls
General Accounting	C. Joseph Rowberry
Ticket Bureau	Floyd R. Taylor, Director
Auxiliary Services	Ben E. Lewis, Director
Farm Management, Creamery, Laundry, Food Buying	William B. Harrison, Manager
Food Service	Wells Cloward, Manager
Photo Studio	Joseph M. Boel, Manager
Purchasing, Mail Service, Post Office, Receiving	C. R. Peterson, Purchasing Agent
Student Housing	Fred A. Schwendiman, Director
University Press	Franklin R. Haymore, Manager
Motion Picture Production	Wetzel O. Whitaker, Director
Physical Plant	Leland Perry, Superintendent
Grounds	Carl Morrison, Assistant Superintendent
Heating	Karl A. Miller, Assistant Superintendent
Maintenance of Buildings and Facilities	Robert B. Hellewell Assistant Superintendent
Vice-President in Charge of Religious Education	William E. Berrett
General Counsel and Secretary	Clyde D. Sandgren
Dean of Admissions and Records	Bliss H. Crandall
Admissions Officer	Orrin H. Jackson
Machine Accounting	Bliss H. Crandall, Manager
Records and Registration Officer	Lucille Spencer
Veterans Coordinator	Vila Olsen
Dean of Students	Wesley P. Lloyd
Academic Standards	Selby G. Clark
Advisor to Foreign Students	William C. Carr
Coordinator of Student Organizations	Henry L. Isaksen
Counseling Service	Howard T. Reid, Chairman
Counselor for Women	Lillian C. Booth
Director of Program and Personnel, Women's Housing	Cleo McCracken
Placement Bureau	B. Keith Duffin, Director
Scholarships, Fellowships, Assistantships and Academic Grants	Wesley P. Lloyd, Chairman
Traffic and Security	Leonard E. Christensen, Capt.

Colleges, Schools, Divisions, and Research

Biological and Agricultural Sciences, College of	Raymond B. Farnsworth, Acting Dean
Commerce, College of	William F. Edwards, Dean
	Herald R. Clark, Assistant to the Dean
Education, College of	Asahel D. Woodruff, Dean
	Antone K. Romney, Assistant Dean
Family Living, College of	Marion C. Pfund, co-Dean
Fine Arts, College of	Gerrit de Jong, Jr., Dean
Humanities and Social Sciences, College of	A Smith Pond, Acting Dean
Physical and Engineering Sciences, College of	Harvey Fletcher, Dean
Recreation, Physical and Health Education, and Athletics, College of	Milton H. Hartvigsen, Dean
	C. J. Hart, Assistant to the Dean
Graduate School	George H. Hansen, Dean
Nursing, School of	L. Bernice Chapman, Director
Summer School	Howard T. Reid, Acting Director
Research Division	H. Tracy Hall, Director
Division of Religion	
Graduate Studies	Sidney B. Sperry, Director
Undergraduate Division	B. West Belnap, Director
Extension Division	Harold Glen Clark, Director
	Lynn M. Hilton, Assistant Director
Adult Education Services	Lynn M. Hilton, Chairman
Audio-Visual Aids	Clarence Tyndall, Chairman
Home Study Bureau	Lula Clegg, Supervisor
Travel Studies Bureau	Max Rogers, Supervisor

Service Units

Alumni Association	Raymond E. Beckham, Executive Secretary
Booking University Attractions	Floyd R. Taylor, Chairman
Coordinating and Scheduling of Extracurricular Events	Wesley P. Lloyd
Devotional Assemblies	Stewart L. Grow, Chairman
Libraries	S. Lyman Tyler, Director
Librarian, Heber J. Grant Library	Naoma Rich
Librarian, Science Library	Samuel C. Chandler
Librarian, High School Library	June Berry
Librarian, Elementary School Library	Edna Judd
Coordinator of Laboratory School Libraries and Library Instruction	Hattie M. Knight
Lyceums and Musicals	Herald R. Clark, Chairman
Press Relations	Edwin Butterworth, Director
Public Relations and Publications	Dean A. Peterson, Director
Public Services	W. Cleon Skousen, Director

Radio and Television Programs	Harold I. Hansen, Chairman
Student Health Service	Ariel L. Williams, M.D. University Physician
Student Supply	Herald R. Clark, Chairman of the Board H. Neil McKnight, Manager

Departments of Instruction

Accounting	Joseph T. Bentley, Chairman
Agricultural Economics	Ivan L. Corbridge, Chairman
Agronomy	Merrill J. Hallam, Chairman
Air Science	Colonel Barnett S. Allen, Chairman
Animal Husbandry	Lawrence Morris, Chairman
Archaeology	M. Wells Jakeman, Chairman
Art	Conan E. Mathews, Chairman
Bacteriology	Don H. Larsen, Chairman
Bible and Modern Scripture	Roy W. Doxey, Chairman
Botany	Bertrand F. Harrison, Chairman
Business Education and Office Management	Lars G. Crandall, Chairman
Business Management	Richard L. Smith, Chairman
Chemistry	H. Smith Broadbent, Chairman
Church History	Russell Rich, Chairman
Clothing and Textiles	Margaret S. Potter, Chairman
Economics	Elmer Miller, Acting Chairman
Economics and Management of the Home	Beth S. Hinman, Chairman
Educational Administration	Percy E. Burrup, Chairman
Educational Instruction	Sterling G. Callahan, Chairman
Educational Research and Services	Robert L. Egbert, Chairman
Educational Values and Programs	
Education: Secondary Laboratory Schools	Morris A. Shirts, Principal
Education: Elementary Laboratory Schools	Hyrum J. Babcock, Principal
Engineering Sciences	Jens J. Jonsson, Chairman
English	Leonard Rice, Chairman
Finance and Banking	Howard D. Lowe, Chairman
Food and Nutrition	Marion Bennion, Chairman
Geography	Elliott Tuttle, Chairman
Geology	Harold J. Bissell, Chairman
Health Education and Safety	David D. Geddes, Chairman
History	Richard D. Poll, Chairman
Homemaking Education	Virginia B. Poulson, Chairman
Horticulture and Landscape Architecture	Clarence D. Ashton, Chairman
Housing and Design	Beth S. Hinman, Chairman
Human Development and Family Relationships	Blaine M. Porter, Chairman
Industrial Arts and Drawing	Lavell Gammett, Chairman
Intercollegiate Athletics and Intramural Athletics	
Journalism	Oliver R. Smith, Chairman
L.D.S. Church Organization and Administration	Chauncey C. Riddle, Chairman
Library Science	Hattie M. Knight, Chairman

Marketing	Weldon J. Taylor, Chairman
Mathematics	Milton Marshall, Chairman
Modern and Classical Languages	Arthur R. Watkins, Chairman
Music	John R. Halliday, Chairman
Physical Education for Men	C. J. Hart, Chairman
Physical Education for Women	Leona Holbrook, Chairman
Physics	Wayne B. Hales, Chairman
Political Science	Richard D. Poll, Chairman
Psychology	Mark K. Allen, Chairman
Recreation	Israel Heaton, Chairman
Scouting Education	Royal B. Stone, Chairman
Sociology	Reed Bradford, Chairman
Speech and Dramatic Arts	Harold I. Hansen, Chairman
Theology and Philosophy	David H. Yarn, Chairman
Zoology and Entomology	Vasco M. Tanner, Chairman

University Council

The University Council consists of the Presidency and all members of the faculty with the rank of professor, associate professor, or assistant professor. The University Council is the legislative body of the faculty. Subject to the powers reserved by the Board of Trustees and those exercised either by the President or the Deans' Council, the University Council determines policy and procedure affecting the University and its sub-divisions.

Deans' Council

The Deans' Council consists of the Presidency, all deans, and the directors of schools and divisions.

The Undergraduate Colleges

Each College in Brigham Young University is an undergraduate college which offers work for the bachelor's degree only. All work beyond the bachelor's degree, in every department, is under the Dean of the Graduate School.

The General Committee of the Graduate School

The chief administrative body of the Graduate Faculty is the General Committee, which consists of three groups: (a) The President of the University and the Dean of the Graduate School, ex-officio; (b) Four members of the Graduate Faculty elected by the Graduate Faculty from the Graduate School at large for staggered terms of three years; and (c) Seven members of the Graduate Faculty, one elected for a term of three years from each of seven groups of departments by those members of the Graduate Faculty within such departments. Elections are held so as to stagger the terms of the seven members.

The Extension Division Council

The Extension Division Council is an advisory body for the Extension Division of the University.

The Faculty

Emeriti

James L. Barker .... Professor Emeritus of Modern Languages
B.A., University of Utah, 1901; L. es L., Universite de Neuchatel, 1911; Research in phonetics for Modern Language, Association of America, 1924-25 and 1926-27; Member, Societe de Linguistique de Paris; Officier d'Academie.

William H. Boyle .... Professor Emeritus of Education
B.A., M.A., Brigham Young University, 1913, 1923.

Ella Larsen Brown .... Librarian Emeritus

Gustave Buggert .... Assistant Professor Emeritus of Music

Elsie C. Carroll .... Associate Professor Emeritus of English
B.S., M.A., Brigham Young University, 1926, 1928.

Benjamin F. Cummings .... Professor Emeritus of Modern and Classical Languages
B.A., University of Utah, 1913.

Norman Dunn .... Instructor Emeritus in English
King's Scholar, M.R.S.T., Saltley College, Birmingham, England. 1902-04, 1922.

Flora D. Fisher .... Instructor Emeritus in Elementary School
B.S., M.S., Brigham Young University, 1936, 1949.

May C. Hammond .... Assistant Professor Emeritus of Elementary Education
B.S., M.S., Brigham Young University, 1934, 1949.

William F. Hansen .... Assistant Professor Emeritus of Music
B.S., M.S., Brigham Young University, 1936, 1937.

John E. Hayes .... Registrar Emeritus
B.S., Brigham Young University, 1924.

Harrison Val Hoyt .... Professor Emeritus of Accounting
B.S., Purdue University, 1913; M.B.A., Harvard University, 1917; Ph.D., Stanford University, 1931.

Christen Jensen .... Professor Emeritus of History and Political Science, Dean Emeritus of the Graduate School, and President Emeritus of the University
B.A., University of Utah, 1907; M.A., Harvard University, 1908; Ph.D., University of Chicago, 1921.

Bent F. Larsen .... Professor Emeritus of Art
B.A., Brigham Young University, 1912; M.A., University of Utah, 1922.

John Wells McAllister .... Instructor Emeritus in Education and Public School Music.
B.A., Brigham Young University, 1927.

Florence Jepperson Madsen .... Professor Emeritus of Music
B.M., M.M., Chicago Musical College, 1926, 1927; Doctor of Music, Boguslawski College of Music, 1932; B.A., Brigham Young University, 1934; M.M., hon. Doctor of Music, Chicago College of Music, 1933.

Franklin Madsen .... Professor Emeritus of Music
B.A., M.A., Brigham Young University, 1925, 1931; B.M., 1926; M.M., 1927; B.M.E., 1928; Mus. Doc., 1929; M.M.E., 1932; hon. Doctor of Music Education, Boguslawski College of Music, 1933; hon. Doctor of Music Education, Chicago College of Music, 1934.

Thomas L. Martin .... Professor Emeritus of Agronomy and Bacteriology; Dean Emeritus of the College of Applied Sciences
B.A., Brigham Young University, 1912; Ph.D., Cornell University, 1919.

Anna Ollorton .... Librarian Emeritus
B.A., Brigham Young University, 1913.

M. Wilford Poulson .... Professor Emeritus of Psychology
B.A., Brigham Young University, 1914; M.A., University of Utah, 1919.

Hermese Peterson .... Professor Emeritus of Elementary Education
B.S., Brigham Young University, 1928.

J. Wyley Sessions .... Professor Emeritus of Religious Philosophy
B.S., Utah State Agricultural College, 1911; M.A., University of Idaho, 1928.

Joseph Sudweeks .... Associate Professor Emeritus of Religion
B.S., University of Idaho, 1912; M.A., University of Chicago, 1920; Ph.D., University of Wisconsin, 1925.

Margaret Summerhays .... Assistant Professor Emeritus of Music
B.A., Brigham Young University, 1936; Graduate, New England Conservatory of Music, 1916.

Effie Warnick .... Professor Emeritus of Home Economics
B.S., Utah State Agricultural College, 1914; M.S., Iowa State College, 1937.

Members of the Instructional and Administrative Staff

MEMBERS OF THE PRESIDENCY

Ernest L. Wilkinson .... President of the University
B.A., Brigham Young University, 1921; LL.B., George Washington University, 1926; S.J.D., Harvard University, 1927.

Harvey L. Taylor .... Executive Assistant to the President
B.S., University of Utah, 1921; M.A., Columbia University, 1925.

William E. Berrett .... Vice President in Charge of Religious Education
B.A., LL.B., University of Utah, 1924, 1933.

William F. Edwards .... Vice President in Charge of Finance and Business Administration
B.S., Brigham Young University, 1928; M.S., D.C.S., New York University, 1930, 1937.

Clyde D. Sandgren .... General Counsel and Secretary
B.S., Brigham Young University, 1937; LL.B., St. John's University, 1939.

THE STAFF OF THE UNIVERSITY

Corbett Aamodt .... Assistant Professor of Physics (1954)
BSEE, University of Utah, 1943; M.A., Ph.D., Columbia University, 1948, 1955.

Lorna Call Alder .... Assistant Professor of Elementary Education (1949)
B.S., Brigham Young University, 1935; M.A., Columbia University, 1940.

Zane G. Alder .... Instructor in English (1955)
B.S., M.S., Utah State Agricultural College, 1948, 1956.

A. Lester Allen .... Assistant Professor of Zoology (1954)
A.B., Ph.D., University of California at Los Angeles, 1946, 1951.

Col. Barnett S. Allen .... Professor of Air Science and Tactics (1956)

Mark K. Allen .... Professor of Psychology (1946)
B.A., Brigham Young University. 1926; M.A., Stanford University, 1935; Ph.D., Stanford University, 1955.

Chase R. Allred .... Associate Professor of Agronomy (1955)
B.S., Brigham Young University, 1948; M.S., Kansas State College, 1949; Ph.D., University of Nebraska, 1952.

Mildred Elizabeth Allred .... Instructor in Nursing (1954)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1925; B.S., Brigham Young University, 1943.

Hans Verlan Andersen .... Assistant Professor of Accounting (1953)
B.S., Brigham Young University, 1940; LL.B., Stanford University, 1946; LL.M., Harvard University, 1948; C.P.A., State of Arizona, 1943.

Rayola H. Andersen .... Instructor in Nursing (1953)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1948; B.S., University of Utah, 1949.

Edward P. Anderson .... Assistant Professor of Electrical Engineering (1952)
B.S., M.S., University of Utah, 1948, 1951.

Eloise Richards Anderson .... Instructor in Nursing (1954)
B.S., Brigham Young University, 1954.

Keith Phillips Anderson .... Associate Professor of Chemistry (1953)
B.A., Brigham Young University, 1946; Ph.D., Cornell University, 1950.

Leland E. Anderson .... Assistant Professor of Religion (1954)
B.S., M.A., University of Utah, 1927, 1928.

Vivian Anderson .... Instructor in Nursing (1954)
Diploma, Highland School of Nursing, Oakland, Calif., 1947; B.S., Brigham Young University, 1950.

J. Roman Andrus .... Associate Professor of Art and Education (1943)
B.S., M.S., Brigham Young University, 1942, 1943.

Clarence D. Ashton .... Associate Professor of Horticulture and Landscape Architecture (1951)
B.S., Brigham Young University, 1929.

Hyrum J. Babcock .... Assistant Professor of Elementary Education (1954)
B.A., M.A., Ph.D., University of California, 1939, 1940, 1953.

Dale S. Bailey .... Instructor in English (1955)
B.A., Brigham Young University, 1952; M.A. Columbia University, 1954.

Major Irwin L. Bailie .... Assistant Professor of Air Science (1953)

***Ariel S. Ballif** .... Professor of Sociology; Acting Dean of the Summer School (1938)
B.S., Brigham Young University, 1925; M.A., Ph.D., University of Southern California, 1937, 1945; (On leave as President of the New Zealand Mission.)

Richard Ballou .... Instructor in Music (1951)
A.B., M.A., Brigham Young University, 1948, 1953.

Blauer Lorenzo Bangerter .... Instructor in Physical Education (1953)
B.A., M.S., Brigham Young University, 1951, 1955.

Reid E. Bankhead .... Assistant Professor of Religion (1949)
B.S., University of Utah, 1947; M.Th., Brigham Young University, 1949.

Blauer Lorenzo Bangerter .... Instructor in Physical Education (1953)
B.A., Brigham Young University, 1951.

Frances P. Barlow .... Instructor in Human Development and Family Relationships (1954)
B.S., University of Utah, 1933; M.Ed., Utah State Agricultural College, 1938.

Irene S. Barlow .... Professor of Economics and Management of the Home (1934)
B.S., Utah State Agricultural College, 1919; M.S., University of Chicago, 1934.

Owen L. Barnett .... Associate Professor of Educational Administration (1950)
B.S., M.S., Brigham Young University, 1923, 1927.

Vermon S. Barney .... Instructor in Health and Physical Education (1953)
B.S., Utah State Agricultural College, 1948; Diploma in Physical Therapy, Children's Hospital Association School of Physical Therapy, University of California at Los Angeles, 1951.

Ivan J. Barrett .... Assistant Professor of Religion (1953)
B.S., Utah State Agricultural College, 1938; M.S., Brigham Young University, 1947.

Davis Bartholomew .... Professor of Electrical Engineering (1954)
B.S., University of Utah, 1928; M.S., University of Minnesota, 1940. P.E.E., University of Utah, 1948.

J. LaVar Bateman .... Associate Professor of Speech (1949)
B.A., Brigham Young University, 1941; M.S., Ph.D., University of Wisconsin, 1947, 1950.

Edith Bartholomew Bauer .... Assistant Professor of Secondary Education (1945)
B.A., M.A., Brigham Young University, 1930, 1946.
B.A., Brigham Young University, 1941; M.S., Ph.D., University of Wisconsin, 1947, 1950. (On leave as Visiting Instructor, Territorial College, Agana, Guam.)

Leland Kirk Baxter .... Assistant Professor of Mechanical Engineering (1953)
B.S., University of New Mexico, 1948; M.S., Ph.D., Purdue University, 1952, 1953.

***D Elden Beck** .... Associate Professor of Zoology and Entomology (1938)
B.A., M.A., Brigham Young University, 1929, 1930; Ph.D., Iowa State College, 1933. (On leave to do research for the State Department in Formosa.)

Jay V. Beck .... Professor of Bacteriology (1951)
B.A., M.A., Brigham Young University, 1933, 1936; Ph.D., University of California (Berkeley), 1940.

B. West Belnap .... Associate Professor of Church Organization (1951)
Director of Undergraduate Studies in Religion
B.S., Brigham Young University, 1946; M.A., Ed.D., Columbia University, 1950, 1951.

Marian Bennion .... Assistant Professor of Foods and Nutrition (1952)
B.S., Utah State Agricultural College, 1947; M.S., Teachers' College, Columbia University, 1949; Ph.D., University of Wisconsin, 1956.

Anthony I. Bentley, Sr. .... Instructor in Religion (1954)
A.B., Brigham Young University, 1930; M.A., University of Southern California, 1940.

Joseph T. Bentley .... Assistant Professor of Accounting (1953)
B.S., M.S., Brigham Young University, 1928, 1954; C.P.A.

William E. Berrett .... Professor of Religion (1948)
B.A., LL.B., University of Utah, 1924, 1933.

***Max Joseph Berryessa** .... Assistant Professor of Elementary Education (1948)
B.S., M.S., Brigham Young University, 1948, 1949. (On leave for further graduate work at Stanford University.)

Harold J. Bissell .... Professor of Geology (1938)
B.S., Brigham Young University, 1934; M.S., Ph.D., University of Iowa, 1936, 1948.

Jesse R. Black .... Assistant Professor of Business Education and Office Management
B.S., Utah State Agricultural College, 1938; M.S., University of Utah, 1941; Ed.D., University of Utah, 1955.

Angus Udell Blackham .... Associate Professor of Chemistry (1952)
B.A., Brigham Young University, 1949; M.A., Ph.D., University of Cincinnati, 1950, 1952.

Lt. Col. Rulon D. Blake .... Assistant Professor of Air Science (1953)

Ruth S. Bloom .... Assistant Professor of Nursing (1955)
B.A., Brooklyn College, 1942; M.P.S., Univrsity of Colorado, 1947.

Joseph M. Boel .... Instructor in Physics (1946)
B.S., Brigham Young University, 1941.

Lillian C. Booth .... Counselor for Women (1938)
B.S., M.S., Brigham Young University, 1940, 1950.

Winnifred Bowers .... Instructor in Speech (1954)
B.S., M.A., University of Utah, 1946, 1953.

Clarence S. Boyle .... Professor of Business Management (1927)
B.S., Brigham Young University, 1924; M.S., Ed.D., New York University, 1926, 1941.

William Brace .... Instructor in Library Science (1954)
B.A., Brigham Young University, 1951; M.A., University of Chicago, 1955.

Reed H. Bradford .... Professor of Sociology (1946)
B.A., Brigham Young University, 1937; M.A., Louisiana State University, 1939; M.A., Ph.D., Harvard University, 1941, 1946.

Capt. Robert C. Brady .... Assistant Professor of Air Science (1953)
B.S., University of Utah, 1953.

Ralph A. Britsch .... Associate Professor of English (1938)
B.A., M.A., Brigham Young University, 1933, 1951.

H. Smith Broadbent .... Professor of Chemistry (1946)
B.S., Brigham Young University, 1942; Ph.D., Iowa State College, 1946.

Billings Brown .... Assistant Professor of Chemical Engineering (1953)
B.S., M.S., Ph.D., University of Washington, 1951, 1951, 1953.

Arthur D. Browne .... Associate Professor of Higher Education (1952)
B.A., San Jose State College, 1940; M.A., Stanford University, 1943; Ph.D., Syracuse University, 1952.

Loren C. Bryner .... Professor of Chemistry (1935)
B.S., M.S., Brigham Young University, 1928, 1930; Ph.D., Iowa State College, 1934.

Kenneth C. Bullock .... Associate Professor of Geology (1943)
B.S., M.A., Brigham Young University, 1940, 1942; Ph.D., University of Wisconsin, 1949.

Robert E. Bunker .... Instructor in Physical Education; Assistant Football Coach (1949)
B.S., Utah State Agricultural College, 1937.

Olive Kimball Burmingham .... Instructor in English (1947)
B.A., University of Arizona, 1932; M.A., Brigham Young University, 1934.

Percy E. Burrup .... Associate Professor of Educational Administration; Director of Laboratory Schools (1952)
B.S., M.S., Utah State Agricultural College, 1932, 1941; Ed.D., Colorado State College of Education, 1951.

Jess R. Bushman .... Assistant Professor of Geology (1955)
B.A., Brigham Young University, 1949.

Newbern I. Butt .... Associate in Library and Research (1922)
B.S., Utah State Agricultural College, 1915; M.S., Brigham Young University, 1939.

Edwin J. Butterworth .... Assistant Professor of Journalism (1949)
B.A., University of Utah, 1950, M.A., Brigham Young University, 1954.

Glen H. Calder .... Instructor in Engineering Science (1955)
B.S., M.S., Utah State Agricultural College, 1952, 1953.

JoAnn Calderwood .... Instructor in Physical Education (1955)
B.S., Utah State Agricultural College, 1953; M.S., State College of Washington, 1955.

Gaylon L. Caldwell .... Associate Professor of Political Science (1951)
B.A., Utah State Agricultural College, 1947; M.A., University of Nebraska, 1948; Ph.D., Stanford University, 1952.

Sterling G. Callahan .... Assistant Professor of Secondary Education (1953)
B.A., Brigham Young University, 1937; M.A., George Washington University, 1947; Ed.D., University of Virginia, 1953.

Jennie Campbell .... Associate Professor of Elementary Education; Director of Student Teaching (1952)
B.S., Brigham Young University, 1928; M.A., Teachers' College, Columbia University, 1937.

Dorothy Nelson Candland .... Assistant Professor of Education (1947)
B.S., M.S., Brigham Young University, 1940, 1949; Ed.D., Stanford University, 1956.

Ray R. Canning .... Assistant Professor of Sociology (1947)
B.S., Utah State Agricultural College, 1942; M.S., Brigham Young University, 1948.

Clawson Cannon .... Instructor in Music (1949)
B.M., Eastman School of Music, University of Rochester, 1948; Diploma, Konservatorium Zurich, 1953; B.A., M.A., Brigham Young University, 1954, 1955.

***Mark W. Cannon** .... Instructor in Political Science (1955)
B.A., University of Utah, 1949; M.P.E., M.P.A., Ph.D., Harvard University, 1954, 1955, 1955. (On leave as administrative assistant to Representative Henry Aldous Dixon.)

William C. Carr .... Assistant Professor of History and Political Science (1946)
B.A., Brigham Young University, 1934.

M/Sgt. Harold L. Carter .... Instructor in Air Science (1953)

Samuel C. Chandler .... Science Librarian (1952)
B.S., M.A., Brigham Young University, 1947, 1951; M.A. in L.S., George Peabody College for Teachers, 1951.

L. Bernice Chapman .... Associate Professor of Nursing; Director of the School of Nursing (1954)
Diploma, Community Hospital, Grinnell, Iowa, 1930; B.S., University of Minnesota, 1935; M.A., Columbia University, 1952.

Thomas E. Cheney .... Associate Professor of English (1945)
B.S., Utah State Agricultural College, 1930; M.A., University of Idaho, 1936.

Earl M. Christensen .... Assistant Professor of Botany (1949)
B.S., M.S., University of Utah, 1947, 1949; Ph.D., University of Wisconsin. 1954.

Edward L. Christensen .... Associate Professor of Business Education and Office Management (1953)
B.S., M.S., Ph.D., University of Utah, 1938, 1939, 1953.

Parley A. Christensen .... Professor of English (1927)
B.S., Utah State Agricultural College, 1914; M.A., Ph.D., Stanford University, 1925, 1927.

Ross T. Christensen .... Assistant Professor of Archaeology (1952)
B.A., M.A., Brigham Young University, 1943, 1947.

Bruce B. Clark .... Assistant Professor of English (1950)
B.A., University of Utah, 1943; M.A., Brigham Young University. 1948; Ph.D., University of Utah, 1951.

Harold Glen Clark .... Professor of Education; Director of Extension Division (1946)
B.S., Brigham Young University, 1928; M.S., University of Southern California, 1934; Ed.D., George Washington University, 1942.

Herald R. Clark .... Professor of Finance and Banking (1913)
B.A., Brigham Young University, 1918; M.B.A., University of Washington, 1924.

James Ratcliffe Clark .... Instructor in Religion (1938)
B.A., M.A., Brigham Young University, 1936, 1944.

J. Reuben Clark, III .... Assistant Professor of Modern Languages (1941)
B.A., University of Utah, 1934.

Marden J. Clark .... Instructor in English (1949)
B.A., M.A., Brigham Young University, 1948, 1949.

Monroe H. Clark .... Associate Professor of Philosophy of Education and Guidance (1945)
A.B., Columbia University, 1923; M.A., Brigham Young University, 1927.

Selby G. Clark .... Assistant Professor of Personnel and Guidance (1953)
B.S., University of Utah, 1948; M.A., University of Minnesota, 1949; Ed.D., State College of Washington, 1953.

A. John Clarke .... Associate Professor of Educational Administration (1938)
B.S., M.S., Brigham Young University, 1938, 1942; Ed.D., Colorado University, 1950.

Morris M. Clinger .... Assistant Professor of Speech (1936)
B.A., M.A., Brigham Young University, 1932, 1946.

Major Glannin A. Cloward .... Assistant Professor of Air Science (1954)
Command and General Staff School, Ft. Leavenworth, Kansas, 1945; Air University, Air Command and Staff College, 1952.

Thelma Cochran .... Assistant Professor of Nursing (1954)
Diploma, Brooklyn Hospital School of Nursing, 1947; B.S., New York University, 1935; M.A., New York University, 1953.

Ivan L. Corbridge .... Associate Professor of Economics (1952)
B.A., Utah State Agricultural College, 1946; M.S., University of Chicago, 1948; Ph.D., Washington State College, 1952.

***Clarence Cottam** .... Professor of Biology; Dean of the College of Biological and Agricultural Sciences (1954)
B.S., M.S., Brigham Young University, 1926, 1927; Ph.D., George Washington University, 1936. (On leave as Director, Wilder Wildlife Foundation, Texas.)

Cyntha Ann Cowan .... Instructor in Physical Education (1948)
B.A., University of Utah, 1947; M.S., University of Washington, 1952.

Soren F. Cox .... Special Instructor in English (1955)
B.A., Brigham Young University, 1952.

Marshall R. Craig .... Assistant Professor of English (1953)
B.S., Brigham Young University, 1941; M.A., Columbia University, 1947.

Lars G. Crandall .... Assistant Professor of Secretarial Training (1944)
B.S., M.S., Brigham Young University, 1944, 1945.

Major Robert G. Crawford .... Assistant Professor of Air Science (1954)

Evan M. Croft .... Associate Professor of Business Education and Office Management (1936)
B.S., Brigham Young University, 1929; M.S., University of Southern California, 1940.

David M. Crowton .... Instructor in Physical Education; Assistant Football Coach (1937)
B.S., Brigham Young University, 1938.

Brandt B. Curtis .... Instructor in Music (1955)
B.A., Brigham Young University, 1933; M.M., Indiana University, 1955.

Delva Daines .... Assistant Professor of Elementary Instruction (1955)
B.S., M.S., Utah State Agricultural College, 1940, 1947.

Joseph K. Davies .... Instructor in Economics (1953)
B.S., Marquette University, 1945; M.S., Brigham Young University, 1950.

***C. Edwin Dean** .... Instructor in Mathematics (1949)
B.S., M.S., Brigham Youung University, 1950, 1952. (On leave for further graduate work at the University of Michigan.)

Gerrit de Jong, Jr. .... Professor of Modern Languages; Dean of the College of Fine Arts (1925)
B.A., M.A., University of Utah, 1920, 1925; Ph.D., Stanford University, 1934.

Fred W. Dixon .... Assistant Professor of Physical Education; Tennis and Golf Coach (1928)
B.S., M.S., Brigham Young University, 1926, 1939.

Owen G. Dixon .... Instructor in Physical Education; Assistant Football Coach (1947)
B.S., Brigham Young University, 1946.

Mignon Domgaard .... Instructor in Clothing and Textiles (1954)
B.S., Utah State Agricultural College, 1943; M. of H.E., Oregon State College, 1954.

David M. Donaldson .... Assistant Professor of Bacteriology (1955)
B.S., M.S., Ph.D., University of Utah, 1950, 1952, 1954.

Lester N. Downing .... Assistant Professor of Personnel and Guidance (1954)
B.S., M.S., Utah State Agricultural College, 1947, 1949; Ed.D., Colorado State College of Education, 1951.

Roy W. Doxey .... Assistant Professor of Religion (1948)
B.A., M.A., George Washington University, 1938, 1940.

William G. Dyer .... Assistant Professor of Sociology (1955)
B.A., M.A., Brigham Young University, 1950, 1952; Ph.D., University of Wisconsin, 1955.

Don L. Earl .... Associate Professor of Music (1946)
B.A., M.A., Brigham Young University, 1940, 1947; Ph.D., Indiana University, 1952.

E. John Eastmond .... Associate Professor of Physics (1951)
B.A., Brigham Young University, 1937; Ph.D., University of California, 1943.

Blaine Ellis Edlefsen .... Instructor in Music (1953)
B.A., Brigham Young University, 1952; M. Mus., Eastman School of Music, University of Rochester, 1953.

William F. Edwards .... Professor of Finance and Banking; Dean of the College of Commerce (1951)
B.S., Brigham Young University, 1928; M.S., D.C.S., New York University, 1930, 1937.

Robert Lindsay Egbert .... Professor of Educational Psychology (1955)
B.S., M.S., Utah State Agricultural College, 1947, 1948; Ph.D., Cornell University, 1949.

J. Orval Ellsworth .... Professor of Religion (1954)
B.S., Utah State Agricultural College, 1917; M.S., Ph.D., Cornell University, 1924, 1926.

LaMar T. Empey .... Instructor in Sociology (1955)
B.S., M.S., Brigham Young University, 1951, 1952; Ph.D., State College of Washington, 1955.

Ross S. Esplin .... Instructor in English (1953)
B.A., M.A., Brigham Young University, 1947, 1949.

David Louis Evans .... Instructor in English (1954)
A.B., Idaho State College, 1948; M.A., University of Utah, 1953.

Lucille Evans .... Instructor in Music (1951)
B.A., Brigham Young University, 1948.

Dean B. Farnsworth .... Associate Professor of English (1953)
B.A., M.A., University of Utah, 1946, 1947; Ph.D., University of California (Berkeley), 1950.

Raymond B. Farnsworth ....Professor of Agronomy; Acting Dean of the College of Biological and Agricultural Sciences (1946)
B.S., Brigham Young University, 1937; M.S., Massachusetts State College, 1938; Ph.D., Ohio State University, 1941.

R. Kent Fielding .... Instructor in History (1952)
B.S., M.S., Brigham Young University, 1950, 1952.

D. Allen Firmage .... Associate Professor of Engineering (1955)
B.S.C.E., University of Utah, 1940; M.S., Massachusetts Institute of Technology, 1941.

***Albert L. Fisher** .... Instructor in Geography (1954)
B.S., University of Utah, 1951; M.A., Ph.D., Johns Hopkins University, 1952, 1954. (On leave for post-doctoral studies at Central Intelligence Agency, Washington, D.C.

Chad J. Flake .... Instructor in Library Science (1953)
B A., Brigham Young University, 1953; M.A., University of Denver, 1955.

Royce P. Flandro .... Instructor in Secondary Education (1953)
B.S., M.S., University of Utah, 1948, 1950.

Harvey Fletcher .... Professor of Physics; Dean of the College of Physical and Engineering Sciences (1952)
B.S., Brigham Young University, 1907; Ph.D., Chicago University, 1911; hon.Sc.D., Columbia University, 1935; hon.Sc.D., Kenyon College, 1942; hon.Sc.D., Stevens Institute of Technology, 1942; hon.Sc.D., Case School of Applied Sciences, 1942; hon.Sc.D., University of Utah, 1944; hon.Sc.D., Brigham Young University, 1954.

Harvey Jr. Fletcher .... Assistant Professor of Mathematics (1953)
B.S., Massachusetts Institute of Technology, 1944; M.S., California Institute of Technology, 1948; Ph.D., University of Utah, 1954.

Dean K. Fuhriman .... Associate Professor of Engineering (1954)
B.S., M.S., Utah State Agricultural College, 1941, 1950; Ph.D., University of Wisconsin, 1952.

LaVell C. Gamett .... Assistant Professor of Industrial Arts (1946)
B.S., Brigham Young University, 1935; M.S., University of Oregon, 1951.

***B. Delworth Gardner** .. Instructor in Business Management (1954)
B.S., M.S., University of Wyoming, 1952, 1954. (On leave for further graduate work at University of Chicago.)

Elizabeth Louise Gardner .... Instructor in Clothing and Textiles and in Housing and Design (1952)
B.S., Utah State Agricultural College, 1948; M.S., University of California at Los Angeles, 1954

John Hale Gardner .... Associate Professor of Physics (1949)
B.S., Utah State Agricultural College, 1943; M.A., Ph.D., Harvard University, 1947, 1950.

Crawford Gates .... Associate Professor of Music (1948)
B.A., San Jose State College, 1944; M.A., Brigham Young University, 1948; Ph.D., Eastman School of Music, University of Rochester, 1954.

David D. Geddes .... Assistant Professor of Physical Education and Health (1952)
B.S., M.S., Brigham Young University, 1950, 1952.

O. Norman Geertsen .... Assistant Professor in Physics (1941)
B.S., Brigham Young University, 1930; M.S., University of California at Los Angeles, 1951.

***M. Carl Gibson** .... Instructor in Modern and Classical Languages (1949)
B.A., M.A., Brigham Young University, 1947, 1949. (On leave for further graduate work at University of Oregon.)

Preston R. Gledhill .... Associate Professor of Speech (1947)
Degré Supérieur, La Sorbonne, 1938; B.A., Brigham Young University, 1939; M.A., Louisiana State University, 1940; Ph.D., University of Wisconsin, 1951.

Geraldine S. Glover .... Instructor in Physical Education and Dance (1954)
B.S., University of Utah, 1954.

James Rex Goates .... Professor of Chemistry (1947)
B.S., Brigham Young University, 1942; Ph.D., University of Wisconsin, 1947.

Nan Osmond Grass .... Instructor in English (1951)
A.B., Brigham Young University, 1930; M.A., Stanford, 1954.

***John Alden Green** .... Instructor in Modern Languages (1955)
B.A., M.A., Brigham Young University, 1954, 1955. (On leave for further graduate study.)

1st Lt. Philip L. Grindstaff .... Assistant Professor of Air Science (1955)
B.S., Brigham Young University, 1950.

Stewart L. Grow .... Associate Professor of History and Political Science (1947)
B.S., M.S., Brigham Young University, 1935, 1948; Ph.D., University of Utah, 1954.

***Donworth Gubler** .... Instructor in Modern Languages (1954)
B.A., M.A., Brigham Young University, 1948, 1949. (On leave for further graduate work at University of Washington.)

Norman Gulbrandsen .... Assistant Professor of Music (1951)
B.S., University of Utah, 1942; M.M., Northwestern University, 1948.

Richard L. Gunn .... Assistant Professor of Art and Education (1948)
B.S., M.S., Brigham Young University, 1947, 1950; Ed.D., Stanford University, 1955.

Fred E. Guymon .... Instructor in Business Education and Office Management (1955)
B.S., University of Utah, 1949; M.E., University of Cincinnati, 1951.

***LeRoy R. Hafen** .... Professor of History (1954)
A.B., Brigham Young Young University, 1916; M.A., University of Utah, 1919; Ph.D., University of California, 1924; Litt.D., University of Colorado, 1935. (On leave for further research and study.)

William J. Hafen .... Instructor in Physical Education Director of Intramurals (1954)
B.S., Brigham Young University, 1950; M.A., State College of Washington, 1953.

Richard W. Hales .... Assistant Professor of Physics (1952)
B.S. Iowa State College, 1946; Ph.D., University of California, 1952.

Wayne B. Hales .... Professor of Physics and Mathematics (1930)
B.A., Brigham Young University, 1916; M.A., University of Utah, 1922; Ph.D., California Institute of Technology, 1926.

David B. Hall .... Assistant Professor of Air Science (1955)
B.S., Brigham Young University, 1942.

H. Tracy Hall .... Professor of Chemistry; Director of the Research Division (1955)
B.S., M.S., Ph.D., University of Utah, 1942, 1943, 1948.

Merrill J. Hallam .... Associate Professor of Agronomy (1952)
B.A., Brigham Young University, 1950; Ph.D., Iowa State College, 1952.

John R. Halliday .... Professor of Music (1936)
B.A., M.A., Brigham Young University, 1935, 1936; Ph.D., Eastman School of Music, University of Rochester, 1941.

Lawson D. Hamblin .... Acquisition Librarian (1948)
B.A.. Brigham Young University, 1938; LL.B., Washington College of Law, 1948.

George H. Hansen .... Professor of Geology and Geography; Dean of the Graduate School (1927)
B.S., Utah State Agricultural College, 1918; M.S., Ph.D., George Washington University, 1925, 1927.

Harold I. Hansen .... Professor of Speech (1952)
B.S., Utah State Agricultural College, 1937; M.A., Ph.D., State University of Iowa, 1940, 1949.

Ralph Hansen .... Assistant Reference Librarian (1953)
B.A., M.A., Brigham Young University, 1951, 1954.

Kenneth R. Hardy .... Instructor in Psychology (1954)
B.A., M.A., University of Utah, 1948, 1949; Ph.D., University of Michigan, 1954.

James M. Harris .... Instructor in Educational Research and Services (1955)
B.S., M.S., Utah State Agricultural College, 1952, 1953; Ph.D., Cornell University, 1955.

Maurine Harris .... Instructor in Nursing (1955)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1948; B.S., University of Utah, 1949.

Bertrand F. Harrison .... Professor of Botany (1929)
B.S., M.S., Brigham Young University, 1930, 1931; Ph.D., University of Chicago, 1937.

Charles J. Hart .... Professor of Recreation and of Physical and Health Education; Assistant to the Dean of the College of Recreation, Physical and Health Education and Athletics (1925)
B.S., Utah State Agricultural College, 1922; M.A., Ed.D., New York University, 1932, 1945.

Edward L. Hart .... Associate Professor of English (1952)
B.S., University of Utah, 1939; M.A., University of Michigan, 1941; D. Phil., Oxford University (England), 1950.

Milton H. Hartvigsen .... Professor of Physical Education; Dean of the College of Recreation, Physical and Health Education and Athletics (1956)
B.S., M.Ed., University of Utah, 1930, 1939.

Floyd E. Haupt .... Instructor in Mathematics (1954)
B.S., M.S., University of Arizona, 1947, 1948.

Franklin R. Haymore .... Manager, University Press (1939)
B.S., Brigham Young University, 1939.

C. Lynn Hayward .... Professor of Zoology (1930)
B.S., M.S., Brigham Young University, 1927, 1931; Ph.D., University of Illinois, 1941.

Alma Heaton .... Instructor in Physical Education and Recreation (1953)
B.S., M.S., Utah State Agricultural College, 1950, 1951.

Israel C. Heaton .... Associate Professor of Recreation (1956)
B.S., M.S., Utah State Agricultural College, 1940, 1941; Ed.D., University of Indiana, 1955.

Lynn M. Hilton .... Assistant Professor of Education; Assistant Director of Extension Division (1953)
B.S., M.S., University of Utah, 1950; Ph.D., University of Chicago, 1952.

***Beth S. Hinman** .... Instructor in Economics and Management of the Home and in Housing and Design (1952)
B.S., Utah State Agricultural College, 1950; M.S., Kansas State College, 1955. (On leave for further graduate work at Columbia University)

Lehi F. Hintze .... Associate Professor of Geology (1955)
B.A., University of Utah, 1941; M.A., Ph.D., Columbia University, 1949, 1951.

Harry Hodson .... Associate Professor of Civil Engineering (1953)
B.Sc., B.E., University of Sydney, 1938, 1940.

Leona Holbrook .... Professor of Physical Education (1937)
B.S., University of Utah, 1929; M.A., Ed.D., Columbia University, 1935, 1950.

Elliot C. Howe .... Assistant Professor of Elementary Education (1951)
B.S., M.S., Brigham Young University, 1947, 1950.

Robert J. Howell .... Assistant Professor of Psychology (1952)
B.A., M.A., Ph.D., University of Utah, 1948, 1949, 1951.

Gordon D. Hoyt .... Assistant Professor of Physics (1954)
B.S., M.A., Ph.D., University of Michigan, 1939, 1941, 1950.

Alva Lou Hunt .... Instructor in Nursing (1954)
B.S., University of Utah, 1953; Dietetic Internship, Bronx Veterans Hospital, 1954.

Jay B. Hunt .... Assistant Professor of History and Political Science (1950)
B.A., M.A., Ph.D., University of Utah, 1947, 1948, 1950.

Edmond Preston Hyatt .... Instructor in Geology (1950)
B.S., M.S., Missouri School of Mines, 1949, 1950.

Henry L. Isaksen .... Associate Professor of Personnel and Guidance; Coordinator of Student Organizations (1952)
B A., San Jose State College, 1939; M.A., Stanford University, 1948; Ph.D., University of Utah, 1951.

Charles Edward Jacob .... Associate Professor of Geology 1953)
B.S., University of Utah, 1935; M.S., Columbia University, 1936.

Briant S. Jacobs .... Associate Professor of English (1946)
B.A., Brigham Young University, 1939; Ph.D., State University of Iowa, 1944.

Margaret S. Jacobs .... Instructor in Food and Nutrition and in Homemaking Education (1952)
B.S., Brigham Young University, 1926; M.A., Teachers College, Columbia University, 1936.

Agnes Jahraus .... Assistant Professor of Nursing (1954)
Diploma, University of Minnesota, 1946; B.A., Jameston College, Jamestown, N.D., 1937; M.A., Teachers College, Columbia University, 1954.

M. Wells Jakeman .... Associate Professor of Archaeology (1946)
B A., University of Utah, 1931; M.A., University of Southern California, 1932; Ph.D., University of California, 1938.

Martha R. Jenny .... Associate Professor of Nursing (1952)
Diploma, Presbyterian Hospital School of Nursing, Chicago, 1926; B.S., Teachers College, Columbia University, 1939; M.S., University of Wisconsin, 1946.

Mary Bee Jensen .... Instructor in Physical Education and Recreation (1953)
B.A., Park College of Missouri, 1939.

Vern Harmon Jensen .... Instructor in Personnel and Guidance (1949)
B.S., M.S., Brigham Young University, 1948, 1950.

Edgar M. Jenson .... Professor of Education; Director of the Teacher Placement Bureau (1927)
B.A., M.A., Brigham Young University, 1916, 1919.

Gloria D. Jenson .... Instructor in Library Science (1954)
B.S., Brigham Young University, 1950; M.S., Columbia University, 1954.

***Ethel Lee Jewell** .... Instructor in Food and Nutrition; Resident Housing Consultant in Home Economics (1953)
B.S., University of Utah, 1946. (On leave for further graduate work at Iowa State University.)

James Lorin Jex .... Instructor in Speech (1949)
B.A., M.A., Brigham Young University, 1947, 1950.

Alan P. Johnson .... Instructor in Accounting (1955)
B.A., Brigham Young University, 1954; M.B.A., Indiana University, 1955.

Eldred A. Johnson .... Instructor in Accounting (1955)
B.A., M.A., Brigham Young University, 1949, 1950; C.P.A., California, 1952.

Garth N. Jones .... Instructor in Political Science (1953)
B.S., Utah State Agricultural College, 1947; M.S., Ph.D., University of Utah, 1948, 1954.

Jens J. Jonsson .... Associate Professor of Electrical Engineering (1953)
B.S.G.E., B.S.E.E., University of Utah, 1944, 1946; M.S.E.E., Ph.D., Purdue University, 1947, 1951.

Eleanor Jorgensen .... Instructor in Clothing and Textiles (1949)
B.S., Brigham Young University, 1946; M.S. Kansas State College, 1954.

Joseph J. Keeler .... Assistant Professor of Music; University Organist (1935)
B.S., M.A., Brigham Young University, 1940, 1950.

C. Rodney Kimball .... Instructor in Physical Education and Health (1937)
B.S., Brigham Young University, 1955.

Edwin R. Kimball .... Professor of Physical Education (1935)
B.S., Brigham Young University, 1926; M.S., University of Southern California, 1935; Ed.D., University of Oregon, 1955.

Hattie M. Knight .... Reference Librarian (1941)
B.S., Brigham Young University, 1941; B.S. in L.S., University of Denver, 1943; M.S., in L.S., George Peabody College for Teachers, 1951.

Marion Kohler .... Instructor in Nursing (1954)
Diploma, Salt Lake General Hospital, 1943; B.S., Brigham Young University, 1951.

Harold W. Kopp .... Assistant Professor of Physical Education; Head Football Coach (1956)
B.S., Northeastern University, 1939.

***Mary Althea Krider** .... Assistant Professor of Education (1954)
B.A., University of Nebraska, 1927; Ed.M., University of Oklahoma, 1940. (On leave for further graduate work at Wayne University.)

Don H. Larsen .... Associate Professor of Bacteriology (1952)
B.S., Brigham Young University, 1940; M.A., University of Nebraska, 1942; Ph.D., University of Utah, 1950.

V. Wallace Larsen .... Instructor in Sociology (1952)
B.A., M.A., Brigham Young University, 1949, 1950.

Clinton F. Larson .... Assistant Professor of English (1947)
B.A., M.A., University of Utah, 1942, 1947.

Gustive O. Larson .... Assistant Professor of Church History and Philosophy (1954)
B.A., M.A., University of Utah, 1920, 1926.

S/Sgt. John R. Lasater .... Instructor in Air Science (1954)

***Reuben D. Law** .... Professor of Education (1936)
B.S., M.S., Utah State Agricultural College, 1928, 1933; Ed.D., University of Southern California, 1941. (On leave as President of the Church College of Hawaii.)

***Harold R. Laycock** .... Assistant Professor of Music (1949)
B.A., M.A., Brigham Young University, 1937, 1947. (On leave for further graduate work at University of Southern California.)

Ralph G. Laycock .... Assistant Professor of Music (1953)
B.A., Brigham Young University, 1941; M.S., Juilliard School of Music, N.Y.C., 1948.

Robert L. Layton .... Instructor in Geography (1954)
B.S., M.S., University of Utah, 1951, 1952.

***Harold W. Lee** .... Professor of Modern Languages (1937)
B.A., M.A., Brigham Young University, 1938, 1940; Ph.D., Stanford University, 1946. (On leave as President of the French Mission.)

R. Celdon Lewis .... Instructor in Geology (1953)
B.S., Brigham Young University, 1950; M.S., University of Minnesota, 1953.

Wesley P. Lloyd .... Professor of Philosophy of Education; Dean of Students (1935)
B.S., M.S., Brigham Young University, 1927, 1934; Ph.D., University of Chicago, 1937.

Howard D. Lowe .... Associate Professor of Accounting (1947)
B.S., M.A., Brigham Young University, 1945, 1948; C.P.A., Utah, 1949.

Daniel H. Ludlow .... Assistant Professor of Religion (1955)
B.S., Utah State Agricultural College, 1946; M.S., Indiana University, 1953; Ed.D., Columbia University, 1955.

Lyle Hatch McIff .... Assistant Professor of Accounting (1952)
B.S., Brigham Young University, 1948; M.B.A., University of Texas, 1951; C.P.A., Texas, 1953; C.P.A., Utah, 1954.

John E. McKendrick .... Instructor in English (1953)
B.A., M.A., University of Utah, 1942, 1949.

Lynn A. McKinlay .... Special Instructor in Speech (1955)
Certificate, Post Graduate Certificate, Pasadena Community Playhouse, College of Theatre Arts, 1936, 1937.

H. Neil McKnight .... Instructor in Accounting; Manager, Students' Supply Association (1937)
B.S., Brigham Young University, 1937.

Kent H. McKnight .... Assistant Professor of Botany (1947)
B.S., M.S., Brigham Young University, 1948, 1952; Ph.D., University of Michigan, 1955.

Delbert Harold McNamara .... Assistant Professor of Mathematics and Physics (1955)
B.S., Ph.D., University of California, 1947, 1950.

Melvin P. Mabey .... Instructor in History and Political Science (1955)
B.S., M.A., Brigham Young University, 1947, 1953; D. Phil., Oxford University (England), 1955.

Farrell D. Madsen .... Assistant Professor of Music (1947)
B.A., M.A., Brigham Young University, 1933, 1942.

Georgia Maeser .... Assistant Professor of Elementary Education (1927)
B.S., Brigham Young University, 1928; M.A., Columbia University, 1938.

Milton Marshall .... Professor of Physics (1919)
B.A., Brigham Young University, 1918; Ph.D., University of Chicago, 1924.

Conan E. Mathews .... Associate Professor of Art (1956)
B.A., College of Idaho, 1936; M.F.A., University of Utah, 1950.

Merlin J. Mecham .... Assistant Professor of Speech (1954)
B.A., Brigham Young University, 1948; M.S., Utah State Agricultural College, 1949; Ph.D., Ohio State University, 1954.

Richard L. Meibos .... Instructor in Chemistry (1955)
B.A., Brigham Young University, 1952.

Evan J. Memmott .... Instructor in Education (1955)
B.S., M.S., Utah State Agricultural College, 1950, 1952; M.S., Indiana University, 1953.

Elmer Miller .... Professor of Economics (1923)
B.A., Stanford University, 1914.

Martin L. Miller .... Assistant Professor of Physics and Mathematics (1942)
B.A., M.A., Brigham Young University, 1942, 1950.

M/Sgt. Theodore Mitchell .... Instructor in Air Science (1952)

J. C. Moffitt .... Professor of Education (1953)
B.S., M.S., Brigham Young University, 1926, 1929; Ph.D., University of Chicago, 1940.

John Weldon Moffitt .... Instructor in Psychology (1953)
B.S., Brigham Young University, 1949; M.S., University of Utah, 1950; Ph.D., University of Illinois, 1953.

Samuel C. Monson .... Assistant Professor of English (1952)
B.S., Utah State Agricultural College, 1941; M.A., Ph.D., Columbia University, 1948, 1953.

Alonzo J. Morley .... Professor of Speech (1928)
B.A., M.A., Brigham Young University, 1925, 1931; Ph.D., University of Iowa, 1935.

A. Reed Morrill .... Professor of Educational Administration (1948)
B.S., M.S., Brigham Young University, 1928, 1937; Ed.D., University of Oregon, 1948.

Lawrence Morris .... Professor of Animal Husbandry (1952)
B.S.A., University of Arizona, 1925; M.S., Texas A&M, 1928; Ph.D., Louisiana State University, 1938.

Joseph Richard Murdock .... Instructor in Botany (1952)
B.S., M.S., Brigham Young University, 1949, 1951.

Glen T. Nelson .... Associate Professor of Economics (1954)
B.S., M.S., Utah State Agricultural College, 1942, 1948; Ph.D., University of Illinois, 1950.

1st Lt. Keith J. Nelson .... Assistant Professor of Air Science (1954)
B.S., Utah State Agricultural College, 1950.

K. LeRoi Nelson .... Associate Professor of Chemistry (1956)
B.S., Utah State Agricultural College, 1948; Ph.D., Purdue University, 1952.

Hugh Nibley .... Professor of History and Religion (1946)
B.A., University of California at Los Angeles, 1934; Ph.D., University of California, 1938.

Henry Joseph Nicholes .... Associate Professor of Zoology (1946)
B.A., Brigham Young University, 1935; M.S., Ph.D., University of Wisconsin, 1939, 1941.

Joseph K. Nicholes .... Professor of Chemistry (1933)
B.A., Brigham Young University, 1916; M.A., Stanford University, 1924.

Max M. Nicholes .... Assistant Professor of Animal Husbandry (1954)
B.S., Brigham Young University, 1939; D.V.M., Colorado State College, 1942.

T/Sgt. Alfred C. Nielsen .... Instructor in Air Science (1954)

Eve Nielson .... Catalog Librarian (1949)
B.S., Utah State Agricultural College, 1945.

Quentin R. Nordgren .... Instructor in Music (1955)
B.A., M.A., Brigham Young University, 1942, 1950; Ph.D., Indiana University, 1955.

Cecil R. Oak .... Instructor in Physics (1950)

J. Lloyd Olpin .... Assistant Professor of Mathematics (1955)
B.S., Brigham Young University, 1925; M.S., Colorado University, 1938.

Ernest L. Olson .... Instructor in English (1953)
B.A., M.A., University of Utah, 1948, 1949.

Major Ellis D. Orchard .... Assistant Professor of Air Science (1953)
B.S., Idaho State College, 1950.

Scott G. Orrock .... Instructor in Personnel and Guidance (1955)
M.A., Brigham Young University, 1953.

Kathryn B. Pardoe .... Assistant Professor of Speech (1947)
B.A., Brigham Young University, 1934.

T. Earl Pardoe .... Professor of Speech (1920)
B.A., Brigham Young University, 1925; M.A., University of Southern California, 1931; Ph.D., University of Louisiana, 1936.

Clyde A. Parker .... Instructor in Personnel and Guidance (1953)
B.S., M.S., Brigham Young University, 1952.

*__Robert C. Patch__ .... Instructor in Religion (1949)
B.A., University of New Mexico, 1945; M.Th., Brigham Young University, 1949. (On leave for further graduate work at University of California at Los Angeles.)

Kristine Paulson .... Instructor in Speech (1953)
B.A., Brigham Young University, 1949; M.A., Columbia University, 1950.

John W. Payne .... Assistant Professor of Sociology (1947)
B.A., M.A., Brigham Young University, 1936, 1948.

***Glenn Pearson** .... Instructor in Religion (1951)
B.S., Utah State Agricultural College, 1949; M.A., Brigham Young University, 1951. (On leave for further graduate work at University of California at Los Angeles.)

***Dean A. Peterson** .... Director of Public Relations; Associate Professor of Business Education and Office Management (1942)
B.S., Brigham Young University, 1938; M.S., University of Southern California, 1942. (On leave for further graduate work at Oregon State University.)

Hugh W. Peterson .... Associate Professor of Chemistry (1927)
B.A., M.A., Brigham Young University, 1916, 1928; Ph.D., State University of Iowa, 1936.

Iva Lou Peterson .... Instructor in Physical Education (1953)
B.S., University of Utah, 1950

Robert M. Peterson .... Assistant Professor of Psychology (1950)
B.A., M.A., Brigham Young University, 1947, 1950; Ph.D., University of Wisconsin 1954.

Marion C. Pfund .... Professor of Food and Chemistry; Co-dean of the College of Family Living (1954)
B.S., Simmons College, 1919; M.A., Vassar College, 1921; Ph.D., Yale University, 1928.

Guy Pierce .... Instructor in Industrial Arts (1953)
B.S., Brigham Young University, 1953.

Richard D. Poll .... Associate Professor of History and Political Science (1948)
B.A., M.A., Texas Christian University, 1938, 1939; Ph.D., University of California, 1948.

J. Perry Polson .... Instructor in Business Education and Office Management (1952)
B.S., M.S., University of Utah, 1947, 1952.

A. Smith Pond .... Professor of Economics; Acting Dean of the College of Humanities and Social Sciences (1937)
B.A., University of Utah, 1926; Ph.D., Northwestern University, 1942.

Blaine M. Porter .... Professor of Human Development and Family Relationships (1955)
B.S., M.A., Brigham Young University, 1947, 1949; Ph.D., Cornell University, 1952.

Margaret Schow Potter .... Assistant Professor of Clothing and Textiles (1946)
B.S., Brigham Young University, 1939; M.S., Oregon State College, 1949.

Norma Potter .... Instructor in Nursing (1953)
Diploma, Latter-day Saints Hospital, Salt Lake City, 1931; B.S., University of Utah, 1950.

Virginia B. Poulson .... Assistant Professor of Homemaking Education (1950)
B.S., Brigham Young University, 1931; M.Ed., Colorado A. & M., 1955.

Leonard W. Prestwich .... Instructor in Marketing (1953)
B.S., Brigham Young University, 1948; M.S., New York University School of Retailing, 1949.

Victor William Purdy .... Periodicals Librarian (1954)
B.S., Brigham Young University, 1952; M.S., Columbia University, 1955.

Ellis T. Rasmussen .... Instructor in Religion (1951)
B.S., M.A., Brigham Young University, 1942, 1951.

Jesse W. Reeder .... Assistant Professor of History and Political Science (1952)
B.S., M.S., Utah State Agricultural College, 1934, 1937; Ph.D., Cornell University, 1952.

Howard T. Reid .... Associate Professor of Personnel and Guidance (1953)
B.A., Brigham Young University, 1940; M.S., Ed.D., University of Southern California, 1947, 1949.

Ernest F. Reimschiissel .... Instructor in Landscape Architecture (1942)
B.A., M.S., Brigham Young University, 1940, 1951.

Leonard William Rice .... Associate Professor of English (1942)
B.A., Brigham Young University, 1941; M.A., Ph.D., University of Washington, 1943, 1950.

Naoma Rich .... Librarian (1937)
B.S., Brigham Young University, 1931; Certificate in Library Science, Riverside Library Service School, 1932.

Owen Rich .... Instructor in Radio Speech (1950)
B.S., Brigham Young University, 1950; M.A., University of Southern California, 1953.

Russell R .Rich .... Associate Professor of Religion (1953)
B.S., Utah State Agricultural College, 1936; M.A., Brigham Young University, 1949; Ed.D., University of Wyoming, 1955.

Stella P. Rich .... Assistant Professor of English (1927)
B.S., Brigham Young University, 1926.

Grant S. Richards .... Associate Professor of Animal Husbandry (1945)
B.S., M.S., Utah State Agricultural College, 1940, 1942.

***Eldin Ricks** .... Instructor in Religion (1949)
B.S., Brigham Young University, 1941; M.A., University of Southern California, 1949. (On leave for further graduate work at Dropsie College, Philadelphia, Pa.)

Chauncey C. Riddle .... Instructor in Religion and Philosophy (1952)
B.S., Brigham Young University, 1947; M.A., Columbia University, 1951.

J. Keith Rigby .... Assistant Professor of Geology (1953)
B.S., M.S., Brigham Young University, 1948, 1949; Ph.D., Columbia University, 1952.

Robert E. Riggs .... Instructor in Political Science (1955)
M.A., M.A., University of Arizona, 1952, 1953; Ph.D., University of Illinois, 1955.

Burton W. Robinson .... Associate Professor in Clinical Psychology (1955)
B.S., M.S., Utah State Agricultural College, 1951; Ph.D., Purdue University, 1954.

Clarence F. Robison .... Assistant Professor of Physical and Health Education; Head Track Coach (1948)
B.S., Brigham Young University, 1949; M.S., University of Michigan, 1954.

Lewis M. Rogers .... Assistant Professor of Religion (1955)
B.S., Utah State Agricultural College, 1943; M.A., Ph.D., University of Southern California, 1952, 1956.

***R. Max Rogers** .... Associate Professor of Modern Languages (1945)
B.A., M.A., Brigham Young University, 1940, 1942; Ph.D., Stanford University, 1951. (On leave to teach at the University of the Saar, Germany.)

Antone K. Romney .... Professor of Educational Administration; Assistant Dean of the College of Education (1945)
B.S., M.S., Brigham Young University, 1933, 1934; Ed.D., Stanford University, 1947.

Lawrence W. Sardoni .... Associate Professor of Music (1945)
B.A., M.A., Brigham Young University, 1935, 1946.

T/Sgt. Wesley S. Schow .... Instructor in Air Science (1953)

R. Phil Shumway .... Assistant Professor of Animal Husbandry (1949)
B.S., Utah State Agricultural College, 1947; M.S., University of Minnesota, 1949.

Major Paul A. Simmons .... Assistant Professor of Air Science and Tactics (1951)
B.S., Brigham Young University, 1929; M.S., Massachusetts Institute of Technology, 1950.

John M. Simonsen .... Assistant Professor of Mechanical Engineering (1954)
B.S.M.E., University of Utah, 1950; M.S.M.E., Ph.D., Purdue University, 1952, 1955.

T/Sgt. James W. Sirles .... Instructor in Air Science (1952)
B.S., M.S., Brigham Young University, 1954, 1955.

Owen K. Skousen .... Instructor in Engineering Science (1955)
B.A., University of California at Los Angeles, 1949; M.S., E.E., Stanford University, 1950, 1952.

W. Cleon Skousen .... Assistant Professor of Speech; Director of Public Services (1951)
LL.B., George Washington University, 1940.

Lyman Francis Smart .... Instructor in English (1953)
B.A., Idaho State College, 1950; M.A., University of New Mexico, 1952.

Carol T. Smith .... Special Collections Librarian (1949)
B.A., Brigham Young University, 1940.

Oliver R. Smith .... Associate Professor of Journalism (1938)
B.A. Brigham Young University, 1938; Ph.D., State University of Iowa, 1951.

Richard Leo Smith .... Professor of Business Management (1947)
B.A., University of Utah, 1946; M.B.A., Northwestern University, 1947; C.P.A., Illinois, 1947; C.P.A., Utah, 1948; D.C.S., Harvard Graduate School of Business Administration, 1956.

***Robert Junius Smith** .... Associate Professor of Accounting (1949)
B.S., Brigham Young University, 1948; M.B.A., Northwestern University, 1949; C.P.A., Illinois, 1949; C.P.A., Utah, 1950. (On leave for further graduate work at Indiana University.)

Wilford E. Smith .... Associate Professor of Sociology (1948)
B.A., University of Utah, 1943; M.A., Brigham Young University, 1948; Ph.D., University of Washington, 1952.

Rulon Nephi Smithson .... Instructor in French (1955)
B.A., M.A., Brigham Young University, 1954. 1955.

William H. Snell .... Professor of Industrial Arts (1915)
B.A., M.S., Brigham Young University, 1918, 1939.

H. Wayne Soffe .... Assistant Professor of Physical Education (1938)
B.S., M.S., Brigham Young University, 1938, 1941; D.P.E.,, Indiana University, 1955.

Wayne L. Sorenson ...... Instructor in Secondary Education (1947)
B.S., Brigham Young University, 1940.

Irene Osmond Spears .... Associate Professor of English (1936)
B.A., Brigham Young University, 1929; M.A., Ph.D., Stanford Universtiy, 1934, 1942.

Sidney B. Sperry .... Professor of Old Testament Languages and Literature; Director of Graduate Studies in Religion (1932)
B.A., University of Utah, 1917; M.A., Ph.D., University of Chicago, 1926, 1931.

Russell Stansfield .... Assistant Professor of Business Education and Office Management (1947)
B.S., M.S., Brigham Young University, 1940, 1949.

Homer Gilbert Statham .... Instructor in English (1955)
B.A., Mercer University, 1947; M.A., Brigham Young University, 1955.

Floyd C. (Tally) Stevens .... Instructor in Physical Education; .... Assistant Football Coach (1956)
B.S., University of Utah, 1949.

Robert Eugene Struthers .... Instructor in Speech and Dramatic Arts (1953)
B.S., Utah State Agricultural College, 1949; M.S., Brigham Young University, 1953.

Howard C. Stutz .... Assistant Professor of Botany (1953)
B.S., M.S., Brigham Young University, 1940, 1951.

***Albert D. Swensen** .... Associate Professor of Chemistry (1947)
B.A., M.A., Brigham Young University, 1937, 1938; Ph.D., Louisiana State University, 1941. (On leave for post-doctoral research and study at University of Minnesota.)

Russel B. Swensen .... Professor of History (1933)
B.A., Brigham Young University, 1926; M.A., Ph.D., University of Chicago, 1931, 1934.

Margaret Summerhays .... Assistant Professor of Music (1923)
B.A., Brigham Young University, 1936.

Joseph N. Symons .... Professor of Sociology (1953)
B.S., M.S., Utah State Agricultural College, 1927, 1932; Ph.D., University of Chicago, 1944.

Orea B. Tanner .... Assistant Professor of English (1938)
B.A., Brigham Young University, 1932; M.A., Columbia University, 1953.

Vasco M. Tanner .... Professor of Zoology and Entomology (1925)
B.A., Brigham Young University, 1915; M.A., University of Utah, 1920; Ph.D., Stanford University, 1925.

Wilmer Webster Tanner .... Assistant Professor of Zoology and Entomology (1949)
B.S., M.A., Brigham Young University, 1936, 1937; Ph.D., University of Kansas, 1949.

Charles Taylor .... Assistant Professor of Psychology (1954)
B.Mus., A.B., Ph.D., Syracuse University, 1940, 1948, 1954.

***Ethelyn Peterson Taylor** .... Assistant Professor of Business Education and Office Management (1946)
B.S., Brigham Young University, 1937; M.A., Stanford University, 1949. (On leave for further graduate study.)

Harvey Darrel Taylor .... Assistant Professor of Modern Languages (1948)
B.A., M.A., University of Arizona, 1947, 1948.

Weldon J. Taylor .... Professor of Marketing (1937)
B.S., Brigham Young University, 1934; M.B.A., Harvard Graduate School of Business Administration, 1937; Ph.D., Graduate School of Business Administration, New York University, 1955.

***Robert K. Thomas** .... Assistant Professor of English (1951)
B.A., Reed College, 1947; M.A., University of Oregon, 1949. (On leave for further graduate study at Columbia University.)

***Woodruff C. Thomson** .... Instructor in English (1950)
B.A., M.A., University of Utah, 1938, 1949. (On leave for further graduate study at the University of Utah.)

Lucile Markham Thorne .... Circulation Librarian (1950)
B.A., Brigham Young University, 1929.

***Jack J. Thurgood** .... Instructor in Business Education and Office Management (1951)
B.S., M.S.. Brigham Young University, 1948, 1953. (On leave for further graduate study at Oregon State University.)

Glen H. Turner .... Assistant Professor of Art (1947)
B.S., M.A., Brigham Young University, 1940, 1948.

L. Elliott Tuttle .... Assistant Professor of Geography (1936)
B.S., M.S., Brigham Young University, 1938, 1948.

Mary Helen Tweedle .... Instructor in Dietetics (1955)
B.S., Utah State Agricultural College, 1953; Dietetic Internship, University of California Medical Center, 1954.

S. Lyman Tyler .... Assistant Professor of History; Director of Libraries (1952)
B.S., Ph.D., University of Utah, 1949, 1951.

Clarence Tyndall .... Assistant Professor of Education; Chairman of the Bureau of Audio-Visual Aids (1946)
B.S., Brigham Young University, 1941; M.A., Stanford University, 1952.

Lee Benson Valentine .... Assistant Professor of Modern Languages (1938)
B.A., M.A., Brigham Young University, 1939, 1948.

Leo P. Vernon .... Associate Professor of Chemistry (1954)
A.B., Brigham Young University, 1948; Ph.D., Iowa State College, 1951.

Eileen Viles .... Instructor in Psychology (1955)
B.S., M.S., Brigham Young University, 1954, 1955.

J. Homer Wakefield .... Assistant Professor of Music (1949)
B.S., M.S., M.A., Brigham Young University, 1924, 1933, 1950.

Willard Wall .... Instructor in Economics (1955)
B.S., University of Denver, 1947; M.S., Brigham Young University, 1949.

Jean Anne Waterstradt .... Instructor in English (1945)
B.A., Brigham Young Univerity, 1945; M.A., University of Southern California, 1955.

Arthur R. Watkins .... Associate Professor of Modern Languages (1952)
B.A., M.A., Brigham Young University, 1941, 1942; Ph.D., Stanford University, 1948.

Stanley H. Watts .... Assistant Professor of Physical Education; Head Basketball Coach (1947)
B.S., Brigham Young University, 1938.

Florence Webb .... Instructor in Physical Education and Recreation (1950)
B.S., University of Utah, 1944; M.S., University of California at Los Angeles, 1954.

Newell B. Weight .... Assistant Professor of Music (1948)
B.A., M.A., Brigham Young University, 1938, 1946.

Dale H. West .... Instructor in English (1947)
B.A., Brigham Young University, 1940.

J. Morgan White .... Instructor in Accounting (1953)
B.S., Brigham Young University, 1951; C.P.A., Utah, 1953.

Ernest J. Wilkins .... Assistant Professor of Modern Languages (1953)
B.A., Brigham Young University, 1947; M.A., Ph.D., Stanford University, 1949, 1954.

Frank Ray Wilkinson .... Assistant Professor of Psychology (1955)
B.A., University of Utah, 1948; M.A., University of Hawaii, 1950; Ph.D., Michigan State University, 1955.

Marian Wilkinson .... Instructor in Foods and Nutrition (1955)
B.S., Brigham Young University, 1949; M.A., University of Utah, 1955.

Annette Wilson .... Instructor in Nursing (1956)
B.S., University of Utah, 1954.

Warren B. Wilson .... Assistant Professor of Art and Education (1954)
B.S., Utah State Agricultural College, 1943; M.F.A., State University of Iowa, 1949.

John H. Wing .... Assistant Professor of Chemistry (1931)
B.S., M.S., Brigham Young University, 1926, 1934.

Arthur C. Wiscombe .... Instructor in Educational Values and Programs (1955)
B.S., Brigham Young University, 1952; M.Ed., Harvard University, 1954; M.A., Teachers College, Columbia University, 1955; Professional Diploma "Superintendent of Schools," Columbia University, 1955.

Alan Reid Witbeck .... Instructor in Physical Education (1955)
B.S., M.S., Brigham Young University, 1952, 1954.

Glena D. Wood .... Instructor in English (1952)
B.A., Brigham Young University, 1936; M.A., University of Kentucky, 1949.

Lael J. Woodbury .... Assistant Professor of Speech (1954)
B.S., Utah State Agricultural College, 1952; M.A., Brigham Young University, 1953; Ph.D., University of Illinois, 1954.

Asahel D. Woodruff .... Professor of Educational Psychology; Dean of the College of Education (1949)
B.S., M.S., Brigham Young University, 1936, 1937; Ph.D., University of Chicago, 1941.

Golden L. Woolf .... Professor of Educational Administration (1934)
B.A., M.A., Brigham Young University, 1934, 1936; Ed.D., University of California, 1940.

E. Wayne Wright .... Instructor in Personnel and Guidance (1954)
B.A., M.A., Brigham Young University, 1952, 1953.

David H. Yarn, Jr. .... Assistant Professor of Theology and Philosophy (1950)
B.A., Brigham Young University, 1946; M.A., Columbia University, 1949.

Karl E. Young .... Professor of English (1930)
B.A., M.A., Oxford University (England), 1930, 1934.

(Names of faculty members on leave are marked with asterisks (*) in the departmental faculty listings.)

SPECIAL INSTRUCTORS OR LECTURERS

Jacob Bos, Special Instructor in Music.

Archibald F. Bennett, M.A., Special Instructor in Religion

Merrill Bushnell, M.B.A. Special Instructor in Business Management.

L. Odell Christensen, B.S., C.P.A., Special Instructor in Accounting.

Lathair H. Curtis, B.A., Special Instructor in Journalism.

Glen L. Enke, B.S., Consulting Engineer.

George W. Fitzroy, Special Instructor in Piano.

Carl Fuerstner, Special Instructor in Piano.

Donna Gosar, Special Instructor in Journalism.

D. Spencer Grow, M.S., Special Instructor in Finance and Banking.

Richard E. Hawkins, B.S., C.P.A., Special Instructor in Accounting.

James H. Lawrence, Special Instructor in Journalism.

Elmer E. Nelson, Special Instructor in Piano.

Clyde D. Sandgren, LL.B., Special Instructor in Political Science and Finance and Banking.

DeLance W. Squire, B.S., C.P.A., Special Instructor in Accounting.

Lynn Taylor, B.A., Special Instructor in Art.

THE STAFF OF THE LABORATORY SCHOOLS

Asahel D. Woodruff .... Dean of the College of Education; Director of the Laboratory Schools
B.S., M.S., Brigham Young University, 1936, 1937; Ph.D., University of Chicago, 1941.

Morris A. Shirts .... Principal of the Secondary School
A.B., M.A., Brigham Young University, 1947, 1950; Ed.D., Indiana University, 1952.

Hyrum J. Babcock .... Principal of the Elementary School
B.A., M.A., Ph.D., University of California, 1939, 1940, 1953.

The Elementary School

***Lillian A. Christensen** .... Second Grade
B.S., Brigham Young University, 1942. (On leave for further graduate work.)

Hazel C. Clark .... Kindergarten
B.S., University of Utah, 1938.

Bertha B. Davidson .... Fourth Grade
B.S., M.S., Brigham Young University, 1950, 1954.

Edna B. Judd .... Librarian
B.S., University of Utah, 1943.

Mima Rasband .... First Grade
B.S., M.S., Brigham Young University, 1937, 1950.

Ray D. Warner .... Sixth Grade
B.S., M.S., University of Utah, 1950, 1955.

The Secondary School

Verl Allman .... Biological Sciences
B.S., M.S., Brigham Young University, 1948, 1952.

Grant D. Bendixsen .... Mathematics, Core-Curriculum
B.S., M.S., Brigham Young University, 1949, 1953.

June E. Berry .... Librarian
B.S., Brigham Young University, 1947; M.S., University of Utah, 1952.

Melvin Richard Brooks .... Religion
B.A., M.A., University of Utah, 1944, 1955.

Grant M. Bushman .... Physical Education, Athletics
B.S., Brigham Young University, 1948.

Faye J. Buttle .... Speech, Core-Curriculum
B.A., M.Ed., M.A., Brigham Young University, 1927, 1953, 1954.

Julia A. Caine .... History, Social Studies
B.S., Brigham Young Young University, 1925; M.A., Colorado State College of Education, 1950.

Lane A. Compton .... Physical Sciences
B.S., M.S., University of Utah, 1943, 1951.

Alexander B. Darais .... Art
B.S., Brigham Young University, 1948; M.F.A., Claremont Graduate School, 1952.

Anna B. Hart .... English
B.S., Utah State Agricultural College, 1922; M.A., University of Southern California, 1933; M.Ed., George Peabody College for Teachers, 1949.

Jean Jorgensen .... Mathematics
B.S., Brigham Young University, 1955.

Beulah L. Lane .... Physical Education
B.S., University of Utah, 1948.

George L. Lewis .... Speech and Dramatic Arts
B.A., M.A., Brigham Young University, 1941, 1947; Ph.D., University of Denver, 1954.

Don L. McConkie .... Core-Curriculum, Social Studies
B.S., M.S., Brigham Young University, 1927, 1942.

William E. McKell .... Industrial Arts
B.S., Utah State Agricultural College, 1948; M.Ed., Texas A. & M. College, 1951.

Parke Madson .... Commercial Subjects
B.S., Brigham Young University, 1951; M.B.A., Indiana University, 1954.

Winston Mercer .... English, French
B.S., Brigham Young University, 1942.

Richard Lamont Pope .... English
B.S., Brigham Young University, 1954.

L. Grant Shields .... Music
B.A., Brigham Young University, 1949.

E. Donald Snow .... Physical Education, Athletics
B.S., M.S., Brigham Young University, 1946, 1954.

***M. LeRoy Sparks** .... Commercial Subjects
B.S., Utah State Agricultural College, 1928. (On leave for further graduate study at Oregon State University.)

Fredrick Webb .... Vocal Music
B.A., M.A., Brigham Young University, 1933, 1954.

June G. Whiteford .... Librarian
B.A., Michigan State Normal College, 1942; Certificate in Library Science, Gonzaga University, 1947.

L.D.S. Business College

Kenneth S. Bennion .... Director (1923)
B.S., University of Utah, 1933.

Florence P. Evans .... Instructor in Secretarial Training (1920)

Clara J. Evershed .... Assistant Registrar, Placement Director (1948)

Joan M. Gamble .... Assistant Treasurer and Veterans' Coordinator (1953)

Mary Hinckley .... Assistant Registrar, Night School (1942)

Mildred Hixson .... Instructor in Machine Accounting (1948)

Iris Irons .... Instructor in Secretarial Training (1930)

Heber C. Kimball .... Treasurer (1915)
B.S., University of Utah, 1946.

***Alfred C. Nielsen** .... Instructor in Accounting and Religion (1948)
M.A., Brigham Young University, 1939.
*On leave of absence.

W. Clifford Sessions .... Instructor in Accounting, Law, Economics (1945)
B.S., University of Utah, 1927.

Veda M. Skanchy .... Instructor in Secretarial Training (1944)
B.S., Utah State Agricultural College, 1927.

Burt M. Slusser .... Instructor in Accounting, Law, Salesmanship (1947)
B.S., University of Utah, 1940.

Norma K. Swigart .... Instructor in Secretarial Training (1933)

George R. Woolley .... Institute Director (1955)
Lt. Colonel; Chaplain, Veterans Hospital, 1952. Reserve Chaplain since 1928.

SPECIAL INSTRUCTORS

Victor K. Cummings .... Instructor in Higher Accounting
A.B., University of Utah, 1943; C.P.A., State of Utah.

Eugene C. Hinckley .... Instructor in Secretarial Training (1926)
B.S., University of Utah, 1944.

J. Dale Parkinson .... Instructor in Accounting (1955)
B.A., University of Utah; M.B.A., Harvard Graduate School of Business; C.P.A., State of Utah.

Lorenzo B. Summerhays .... Instructor in Accounting (1946)
B.C.S., Washington, D.C., School of Law and Accountancy; C.P.A.

Avis Rundell .... Instructor in Secretarial Training (1948)
B.S., University of Utah, 1948.

McCune School of Music and Art

N. Lorenzo Mitchell .... **Director (1950)**

PIANO

Beverly Decker Adams
B.Mus. McCune School of Music and Art, 1947. Piano: Mabel Borg Jenkins, Grant Johannesen.

Frank W. Asper
Graduate, New England Conservatory of Music, 1919; D. Mus., Bates College, 1938. Piano: Alberto Jonas, Carlo Buonomici, Alfred DeVoto; Organ: Homer Humphrey; Theory: Wilhelm Klatte, Louis C. Elson, Stuart Mason, Wesley LaViolette; fellow, American Guild of Organists; organist, Salt Lake Tabernacle.

Donna L. Behunin
B.Mus., McCune School of Music and Art, 1954. Piano: Jessie Seamons Taylor, Mabel Borg Jenkins.

Jack E. Bowman
B.A., Brigham Young University, 1950; Piano: Gerrit de Jong, Jr., Reid Nibley, Sumner Prindle.

Gladys Bullock
B. Mus., McCune School of Music and Art, 1937. Piano: Mabel Borg Jenkins, E. Robert Schmitz, Frederic Dixon; organ: Edward P. Kimball; normal methods: Raymond Burrows, Leo Podolsky.

Maurine Dewsnup
B. Mus., McCune School of Music and Art. Piano: John J. McClellan, Becky Almond, Edward Harris, Leslie Hodgson; composition: Wesley LaViolette.

Ruth Draney Harris
B. Mus., McCune School of Music and Art, 1951. Piano: Edward P. Kimball, Frank W. Asper, Tracy Y. Cannon, Mabel Borg Jenkins; organ: Tracy Y. Cannon, Frank W. Asper; theory and composition: Tracy Y. Cannon, Frank W. Asper, and Mabel Borg Jenkins; normal methods: Raymond Burrows.

Mabel Borg Jenkins
Graduate, New York Institute of Musical Art; B.A., University of Utah. Piano: Ernest Hutcheson, Sigismund Stojowski, James Friskin, E. Robert Schmitz, Egon Petri, Robert Casadesus, Fountainbleau, Aix en Provence, France, Summers 1947, 1951.

Grant Johannesen (Visiting Artist Teacher)
B. Mus., McCune School of Music and Art. Piano: Mabel Borg Jenkins, E. Robert Schmitz; Egon Petri, Robert Casadesus.

Evelyn Ann McLeod
Graduate, Idaho Technical Institute, 1924; Anderson School of Music, Pocatello, Idaho, 1924-30; Senior Teacher's Certificate, Glen Dillard Gunn School of Music, Chicago, Summer 1926; Chicago Musical College, Summers 1929, 1933; State University of Iowa, Summer 1944; University of Utah, Summer 1955. Specialist's Certificate for Private Teachers of Music, State of Idaho, 1927.

Janis R. Minter
B.Mus., McCune School of Music and Art, 1954. Piano: Lowell Farr, Mabel Borg Jenkins.

Viola Taylor
Piano: Tracy Y. Cannon, Charles Shepherd, E. Robert Schmitz; normal methods: John M. Williams, Raymond Burrows.

Reed Paul Thompson
B.A., M.A., Brigham Young University, 1951, 1952. Piano: Gerrit de Jong, Jr.

Robert S. Whitmore
B.S., University of Utah, 1954. Piano: Walter Shaw, Mabel Borg Jenkins. Theory: McCune School of Music and Art, University of Utah.

VOICE

Earl Ottley
Voice: Maragaret Summerhays; Solon Alberti, New York City; Peter T. Tkack, Minneapolis, Minn. Advanced choral conducting, Christiansen Choral School, Chicago.

John Parrish
Voice: Percy Rector Stephens, Lagar Samoiloff, A. L. Hettich, Thomas Salignac; coaching: Camille Decreuse, Walter Goldie; harmony and theory: New York and Paris; conducting: Albert Stoessel, Olaf Christiansen.

Margaret Summerhays
B.A,, Brigham Young University, 1936; graduate, New England Conservatory of Music, 1916. Voice: Frederick H. Haywood, Fanle Hemstreet, Sophia Cechenovska, Ives Finayre; coaching: Guilo Setti, Pietro Cimini, Gabriel Lapiere; repertoire: Walter Goldie, Charles Baker, Emil J. Polok; dramatic expression: S. B. L. Joseph.

VIOLIN

Reginald Beales
Violin: Edgar Drake, Michael Posner Baxte.

William Radinger
Graduate, Vienna Conservatory, Vienna, Austria, 1926.

Aurelia C. Shimer
Violin: Willard Weihe, Albert Shepherd, William Hardiman, Lawrence Sardoni, Zoellner.

ORGAN

Frank W. Asper (See Piano Department.)

William M. Foxley
B.Mus., McCune School of Music and Art. A.B., B.Y.U., 1954. Organ: Frank W Asper; Germaro D'onoprio, Conservatory of Music, Naples, Italy; Allen Bacon, College of the Pacific.

N. Lorenzo Mitchell
Supervisor of Music Degree, University of Alberta, Canada. Piano: Fletcher Carman, England; Tracy Y. Cannon. Organ: Tracy Y. Cannon. Orchestration: G. W. Rouse. Voice: Leo M. Coombs.

Alexander Schreiner
B.A., Ph.D., University of Utah, 1942, 1954. Organ and theory: John J. McClellan Charles Marie Widor, Louis Vierne, Henri Libert; fellow, American Guild of Organists; organist, Salt Lake Tabernacle.

CHORAL CONDUCTING

J. Spencer Cornwall

Conducting: Otto Meissner, Daniel Protheroe, Osborne McConathy; piano and organ: Cyril Graham, Max Obendorfer; voice, theory, and public school music: George Nelson, T. P. Gliddings, and at Northwestern University and Columbia School of Music, Chicago; Director, Salt Lake Tabernacle Choir.

ORCHESTRAL INSTRUMENTS

Dean Alsop (Brass)

B.A., Brigham Young University, 1938. Trumpet-cornet: Will Bickert; trumpet soloist: Brigham Young University Concert Band and Utah Symphony Orchestra.

Loel Hepworth (Woodwind)

Clarinet: University of Utah; Max Dalby, of Utah Symphony Orchestra.

Marian Robertson (Cello) On leave of absence

B.A., Brigham Young University, 1948; M.A., University of Utah, 1952. Cello: Ionre Hartman, Conservatory of Mexico; Duchon-Doris, Conservatory of Lyons, France; Maurice Marechal, National Conservatory, Paris; Adolph Frezin, Paganini Quartet; and Joseph Wetzels, Utah Symphony Orchestra.

THEORY

Frank W. Asper (See Piano)

Reginald Beales (See Violin)

Maurine Dewsnup (See Piano)

N. Lorenzo Mitchell (See Organ)

Viola Taylor (See Piano)

SPEECH AND DRAMA

Georgiana Taylor Lees

B.A., M.A., University of Utah, 1926, 1952. Acting: Richard Boleslavsky, Maria Ouspenskaya, American Laboratory Theatre, New York; diction: Margaret Pendergast McLean; voice: Margaret Dessoff; radio: University of Wisconsin.

DANCE

Robert J. Blake

B.S., University of California, 1950. Modern Dance: Halprin-Lathrop Studio, San Francisco; Martha Graham, Louis Horst, Jean Erdman, New York.

Janice Elaine Day

B.F.A., University of Utah, 1951; M.A., Michigan State University, 1955. Former member, Dance Faculty, Smith College; Connecticut College. Dance: Halprin-Lathrop; Martha Graham; Pearl Primus.

Virginia Tanner
B.A., University of Utah, 1941. Modern Dance: Doris Humphrey, Charles Weidman, Gertrude Shurr, Merce Cunningham, Jose Limon; ballet: Eugene Loring, Carmeleta, Nanette Charisse.

Juan Valenzuela
Modern Dance: Virginia Tanner; Elizabeth Waters, Sante Fe, N.M.; Martha Graham, Jose Limon, Louis Horst, New York. Ballet: Christensen Ballet School, San Francisco; George Chaffee, Katherine Dunham, New York. Primitive: Katherine Dunham.

ART

Justin F. Fairbanks (Sculpture)
B.A., University of Utah. Studied at Brigham Young University and at the Sorbonne College, University of Paris. Has exhibited extensively.

Vere L. Mathews
School of Fine and Applied Art, Battle Creek, Michigan.

***Harold D. Olsen**
B.F.S., University of Utah, 1954. Represented in many exhibits and private collections.

DeAna McDonald
Art: University of Utah, Michael Cannon, Mary Kimball Johnson, Harold Olson. Secretary, Associated Utah Artists. Exhibited at Springville National Art Exhibit, Salt Lake County and Utah State Fairs.

Objectives

> . . . seek ye out of the best books words of wisdom: seek learning even by study, and also by faith.
>
> —Doctrine and Covenants, Sec. 88, v. 118

David O. McKay, President of the Church of Jesus Christ of Latter-day Saints, has stated that the following should be the objectives of a student at the Brigham Young University:

1. Become aware of one's own ignorance and gain humility in contemplating how infinite God's creations are.

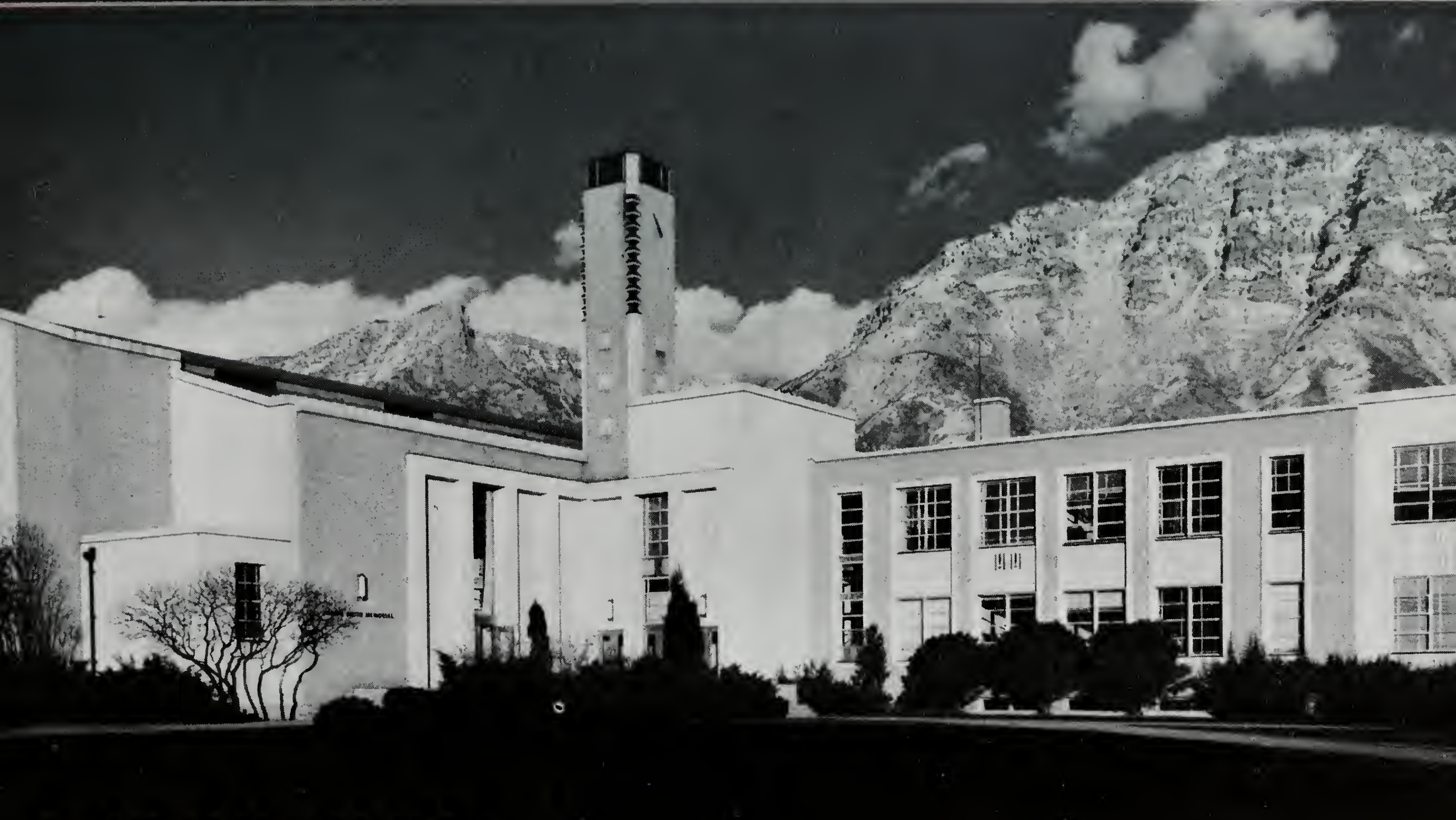
2. Increase one's knowledge, selecting those facts and truths which will be most valuable and realizing that exact and definite knowledge is always of the greatest possible value and importance to every individual who has the moral courage to use it rightly.

3. Learn that acquisition of knowledge will result only from personal effort, not from superficial study or shirking.

4. Realize the responsibility one has because of free agency, of individual choice. The opportunity for rising above the plane of animal existence is open to all who will choose it.

5. Come to a knowledge that the purpose of life is not mere existence or pleasure or fame or wealth, but the perfection of humanity through individual achievement under the guidance of God's inspiration.

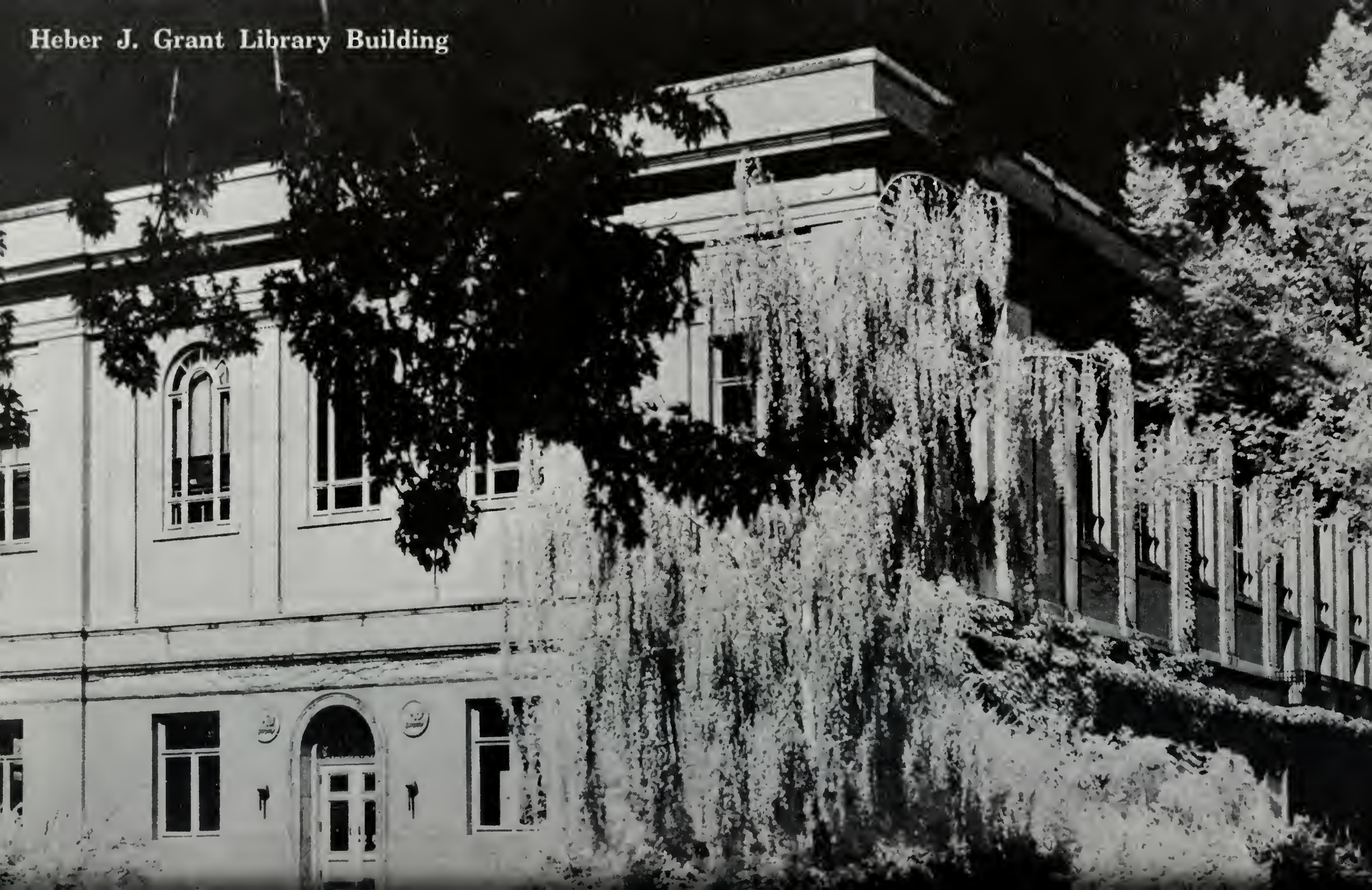
It has been the aim of the University to encourage students to realize these objectives, objectives closely allied to, and derived from, the basic philosophy of Mormonism: man, the son of God, is a free agent with unlimited possibilities for eternal development under God's guidance; a never-ending search for truth and for an understanding of the truth should be among the activities of those who aspire to perfection.



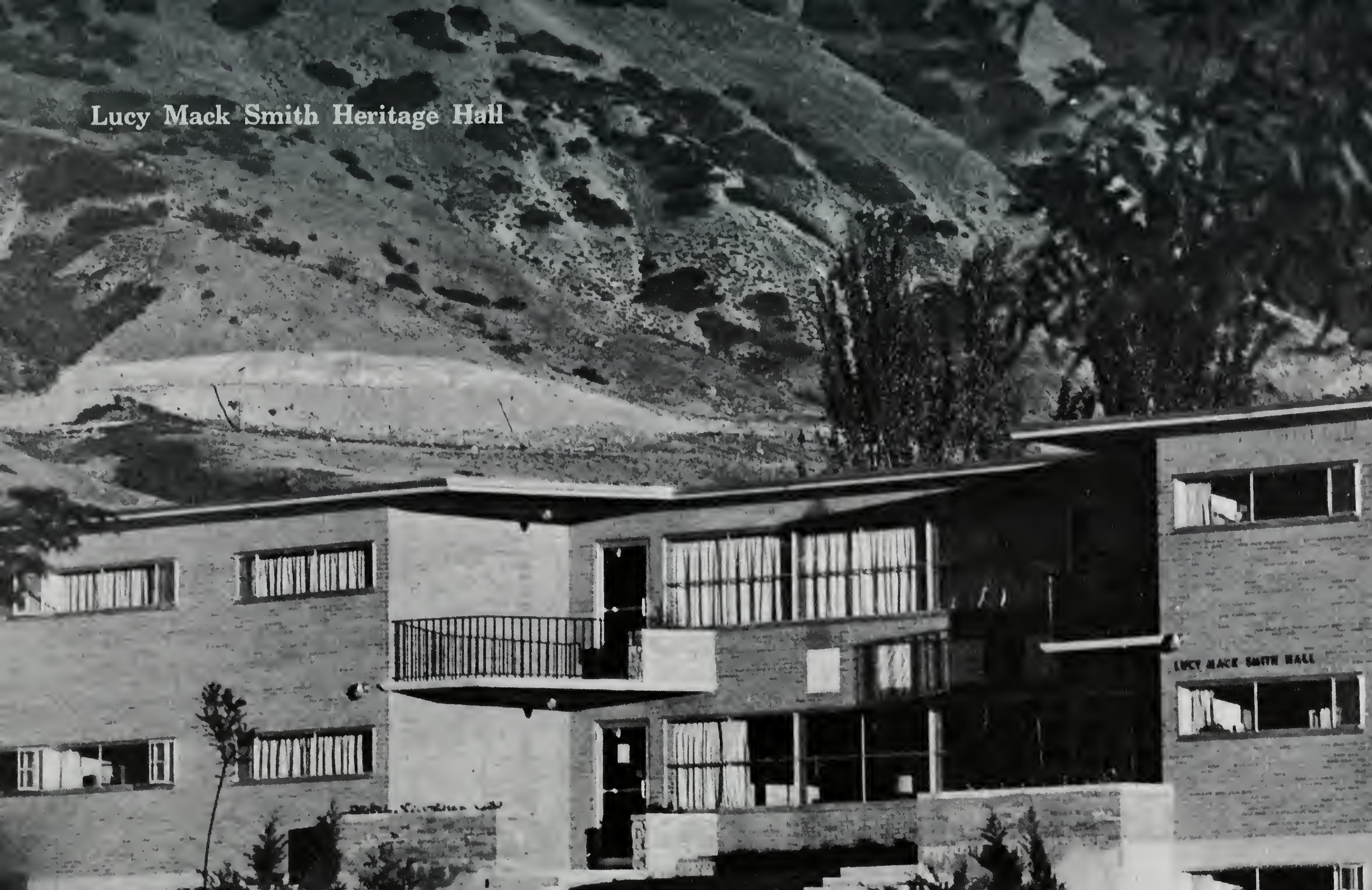
Joseph Smith Memorial Building

Karl G. Maeser Memorial Building

Autumn comes to a campus road

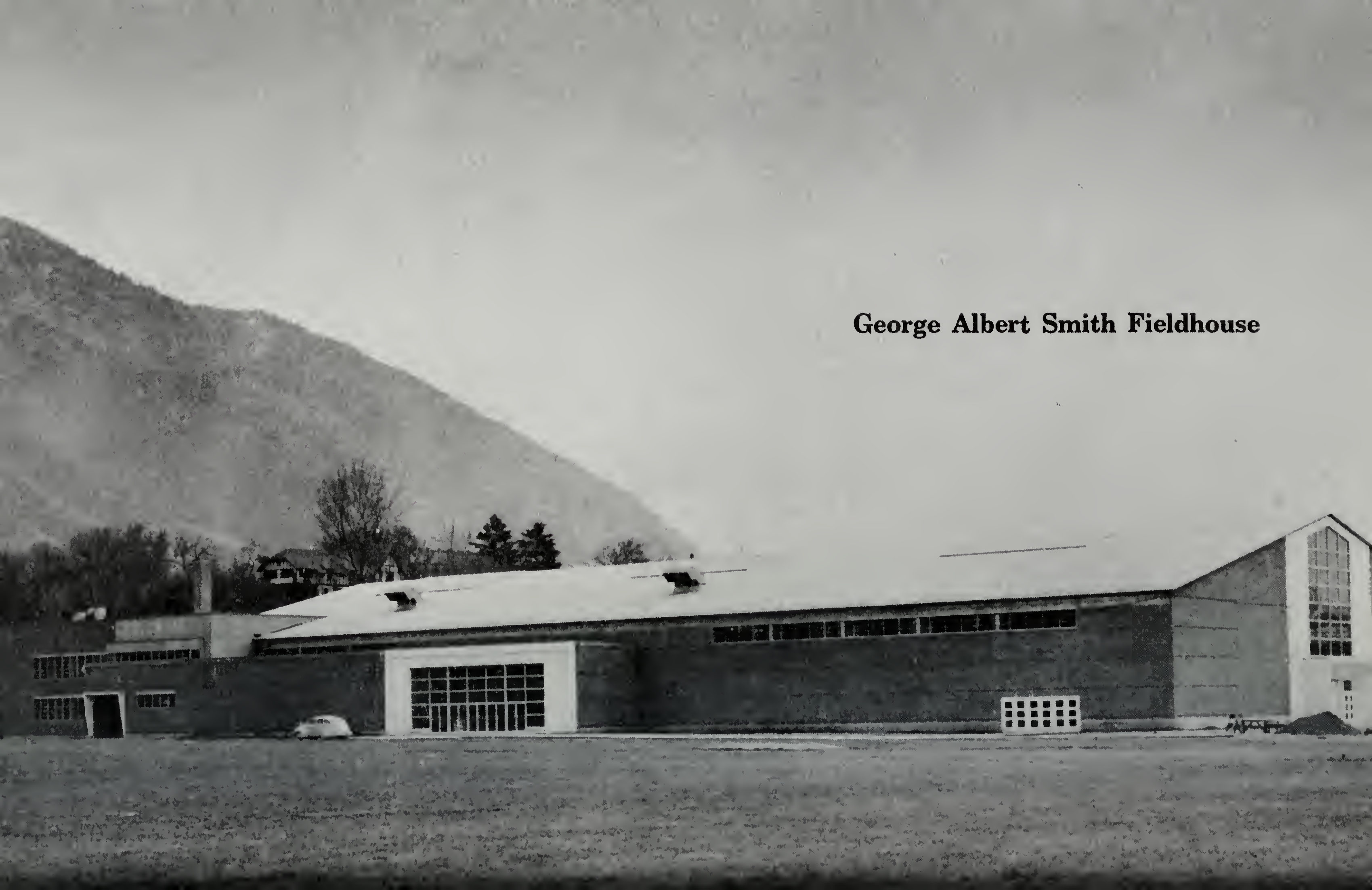


Heber J. Grant Library Building



Lucy Mack Smith Heritage Hall

LUCY MACK SMITH HALL



George Albert Smith Fieldhouse

Special Visitor

David O. McKay Building

Brigham Young University -- Past and Present

History of the University

Founding and Philosophy. Brigham Young University was established pursuant to a deed of trust executed by Brigham Young, President of the Church of Jesus Christ of Latter-day Saints, on October 16, 1875. That deed expressly set forth that the "pupils shall be instructed in . . . such branches as are usually taught in an academy of learning," and also "in the Old and New Testaments, the Book of Mormon and the Book of Doctrine and Covenants."

A group of seven persons appointed by President Young comprised the first Board of Trustees. They were: Abraham O. Smoot, President of Utah Stake of the Church, which embraced all of Utah County, William Bringhurst of Springville, Leonard E. Harrington of American Fork, and Wilson H. Dusenberry, Martha J. Coray, Myron Tanner, and Harvey H. Cluff of Provo, all prominent members of Utah Stake.

At a meeting November 22, 1875, the Board of Trustees organized the Academy. At that time the Timpanogos Branch of the University of Deseret had just been discontinued, and it was too late in the year to arrange a complete school year. Consequently the board decided to hold two preliminary terms of the Brigham Young Academy. Warren N. Dusenberry, who had been Principal of the Timpanogos Branch, was selected to become Principal of the Academy. After conducting the first preliminary term, which ended April 15, 1876, he resigned to practice law.

Ten days later, President Brigham Young, acting for the Board of Trustees, requested Dr. Karl G. Maeser, a convert to the Church from Germany, to come to his office. "Brother Maeser," said the President, "I have another mission for you. We have been considering the establishment of a Church school, and are looking around for a man—a man to take charge of it. You are the man, Brother Maeser. We want you to go to Provo to organize and conduct an Academy to be established in the name of the Church—a Church School."

A few days later, Dr. Maeser called at the office of President Young and said, "President Young, I am ready to go to Provo. What are my instructions?"

"Only this," replied the President. "I want you to remember that you ought not to teach even the alphabet or the multiplication tables without the spirit of God. That is all. God bless you. Goodbye."

Dr. Maeser accepted this all-embracing charge, believing that the ultimate good in education could be summed up in the words of the Master: "Be ye perfect, even as your Father in Heaven is perfect." In one of his memorable sermons, Dr. Maeser stated the real purpose of the school by saying, "Not by bread alone, neither for bread alone does man live. There are higher objectives yet to be attained, other truths to be learned, and greater work to be done." Years later, consistent with that philosophy, the school adopted as its motto this revelation of the Lord: "The Glory of God is Intelligence."*

*Doctrine and Covenants, Section 93.

Administration of Karl G. Maeser. Karl G. Maeser served as principal of the Academy from April 24, 1876, to January 4, 1892, a period of 16 years.

He had received intensive training in the excellent German schools of his time. He was a graduate of the Dresden Gymnasium and of the normal schools of Friedrichstadt, Germany. At the time of his conversion to the Church, he was Vice-Director of the Budich Educational Institute at Dresden.

Neither Warren N. Dusenberry, nor Dr. Karl G. Maeser had much academic assistance at the beginning of school. When Dr. Maeser began his teaching at Brigham Young Academy, he was Principal and the sole teacher of the twenty-nine students, most of them from Utah County.

The old Lewis Building, which stood on the corner of Third West and Center Streets, was the first home of the Brigham Young Academy. This building was later described by Justice George Sutherland of the United States Supreme Court, one of the Academy's first students, as being a "structure without beauty or grace or any other aesthetic feature calculated to invite a second look . . . It consisted of one large room and a stage—both so utterly bare and gloomy as to make inappropriate any form of entertainment except tragedy."

By 1882 this building was found to be inadequate for the needs of the school, and additional rooms were built from funds provided by A. O. Smoot, Harvey H. Cluff, Myron Tanner, and W. H. Dusenberry. However, this structure was entirely destroyed by fire January 27, 1884. Temporary quarters were obtained, and the school continued with the loss of only one day of school. During the summer of 1884 arrangements were made with Z.C.M.I. for the use of the upper floor and part of the lower floor of its warehouse on University Avenue.

Members of the Board of Trustees were appointed by Brigham Young until his death in 1877, when this responsibility fell upon his heirs.

The transition of the Brigham Young Academy into the University of the Church has been marked by periods of great financial distress. Brigham Young died before he had provided for the endowment of the institution. This left the school without any assured source of income.

In the early days of the school, when no funds for the budget could be found, the Board actually considered closing the Academy. It was then that Professor Maeser and his faculty showed their loyalty by teaching for anything they could get, including agricultural products, which were accepted from students in lieu of cash tuition.

President A. O. Smoot of Utah Stake was equally loyal. In the winter of 1887, to bolster up a shrinking enrollment, he asked each member in attendance at a Stake Priesthood meeting to pay the tuition of at least one student at the Academy. On leaving before the close of the meeting, he told the Priesthood assembled that they might name the sum he should pay and he would abide by the decision. Members of the Academy faculty readily responded to the call. One faculty member, who was teaching his first year at a salary of twenty dollars per month, paid a quarter's tuition for one student.

On June 8, 1888, President Wilford Woodruff organized a General Board of Education of the Church, consisting of nine members. This Board directed the activities of the school, but the power of appointment of the Board of Trustees still remained with the heirs of Brigham Young until July 18, 1896, when, by the adoption of the Articles of Incorporation for the University, the right of appointment was granted to the First Presidency of the Church through the consent of the heirs of Brigham Young. By this action, the Church assumed the indebtedness of the institution and accepted the responsibility of maintaining Brigham Young University.

On January 4, 1892, the school was moved to what is now known as the Education Building, the first structure built especially for the University. Much of the $75,000 it cost was made available through the personal credit of President A. O. Smoot, a member of the Board of Trustees at that time.

Dr. Maeser's administration will be remembered primarily because of his masterful teaching. His legacy to the Church school system consisted of three ideals: (1) the acquirement of intelligence by academic studies; (2) the development of character; and (3) a reverence for the revealed word of God, together with a living testimony of the divinity of the message of the Church which he represented. He often stated that "no infidel" would go out from his school, and it is doubtful whether any did. His sermons were classics which lived with his students throughout their lives. He was the great spiritual architect of the school.

Administration of Benjamin Cluff. Benjamin Cluff, a former student of Karl G. Maeser, served as President from January 4, 1892, to December 23, 1903. He was one of the first native Utahns to earn a college degree, having received it from the University of Michigan in 1890. He influenced many young men and women to go to larger universities in pursuit of higher learning. Some of them later became teachers at the Brigham Young University.

His administration was effective in changing the school from one which was still largely a normal school, with a very small college department, to the University.

After 1892, President Cluff asked the Church authorities to provide another building to house the growing student body properly. As the Church was not prepared to furnish the money, Reed Smoot, chairman of the Executive Committee of the Board, took the initiative and secured the contribution of one thousand dollars each from Wilford Woodruff, George Quayle Cannon, Joseph Fielding Smith, Reed Smoot, Jesse Knight, Charles Edwin Loose, Alfred William McCune, Amanda Inez Knight, Stephen L. Chipman, and Jesse William Knight. The cost of the building exceeded ten thousand dollars, but Reed Smoot subscribed the additional amount to cover the expense. It was named College Building. Dedication was held in connection with commencement week in 1898.

The financial panic of 1893 further intensified the school's financial difficulties. Some of the real estate sold to clear part of the indebtedness had to be repossessed by the school, and $30,000 was supplied by the Church to be applied on its debts. President A. O. Smoot underwrote large notes of the school to keep it operating. On his death, the trustee-in-trust of the Church, in the interest of the heirs of the estate, agreed to underwrite all notes of the Academy bearing President Smoot's endorsement.

President Cluff was instrumental in founding an alumni association in June of 1893. He gave encouragement to student organization and activity. Early in his administration two school papers were begun; athletic sports such as football, basketball, and track were encouraged; and the school colors, blue and white, were chosen. He established the first summer school and added new departments and laboratories.

In 1894 the title of the head of Brigham Young Academy was changed from "Principal" to "President," and, in 1903, the school became Brigham Young University.

In 1900 President Cluff sponsored a South American expedition to engage in archaeological study of Book of Mormon sites. While he was in South America, Acting President George H. Brimhall asked the authorities for a Church Normal Training School building with a gymnasium on the upper floor. Jesse Knight, a member of the Board of Trustees, volunteered a contribution of $15,000. The board promptly authorized the project. Other contributions were solicited with good results. The total cost of the Training School and Gymnasium Building was $35,000. The dedication service was held February 17, 1902.

Administration of George H. Brimhall. On April 16, 1904, after having acted as President of the University while Benjamin Cluff was in South America, George H. Brimhall was appointed President of the Brigham Young University. Joseph B. Keeler was appointed his first counselor and Edwin S. Hinckley his second counselor.

Dr. Brimhall also was a former student of Dr. Karl G. Maeser. He was a dynamic speaker and a great moulder of character. He continually stressed the fact that the primary purpose of the school was to make better Latter-day Saints.

The Missionary and Preparatory Building, later known as the Art Building and now as B.Y. High, was dedicated October 26, 1904. It cost $13,000, of which amount $9,000 was apportioned to four stakes: Utah, Alpine, Nebo, and Wasatch.

In 1904, the students and faculty began negotiations for the purchase of seventeen acres of land known generally as Temple Hill. This land was purchased from Provo City about 1907 at a total cost of $1,000 and was the beginning of the upper campus. A survey of the land purchased showed that about one and one-half acres at the point of the hill was not included in the deed given by Provo City. The students and faculty members of the school voluntarily raised an additional $1,000 to pay for this land.

This purchase provided a place for the Maeser Memorial Building, the cornerstone of which was laid on Founder's Day, 1909. It was ready for occupancy the fall term of 1911. The structure and furnishings cost $130,000; the Knight family contributed $65,000, and other members of the alumni some $50,000. The remainder of the cost was met through the sale of Blue Bench Irrigation Company Bonds owned by the school.

The Women's Gymnasium was erected in 1913; the Mechanic Arts Building in 1919.

On December 21, 1914, the late Jesse Knight made an endowment to the University of one hundred thousand dollars in six per cent bonds. The interest payments on these bonds, together with the payments on bonds which have matured, have been placed at interest, and the cash credit of this account now represents approximately twice the amount of the original endowment.

During President Brimhall's administration graduate work was introduced and the first master's degrees were conferred. The school spirit was furthered by the organization of the students into a student body. Printing of the school yearbook, **The Banyan,** was begun, and a huge white "Y" was placed on the mountainside east of Provo.

Dr. Brimhall served until July 1, 1921, a period of 17 years.

Administration of Franklin S. Harris. Franklin S. Harris, a former student of the institution under President George H. Brimhall, was selected to succeed his former President. Dr. Harris had received his Ph. D. degree from Cornell University in 1911 and had served as an instructor in the Juarez Academy and Cornell University, and as professor of agronomy for the Utah Experiment Station, director of the School of Agricultural Engineering and Mechanical Arts, and director of the Utah Experiment Station at the Utah State Agricultural College. He had a world-wide reputation as a scientist.

Dr. Harris became President July 1, 1921, and served until June 30, 1945, a period of 24 years, the longest term of any President. During his administration, academic gains of great significance were made. The University was organized into five colleges, Applied Sciences, Arts and Sciences, Commerce, Education, and Fine Arts; and the Division of Religion and the Extension Division were established. The Graduate School was formally organized and a dean of the Graduate School appointed. The Heber J. Grant Library was completed in 1925, the Y Stadium in 1929, and during the last ten years of his administration a building program was begun which has been accelerating ever since.

It was President Harris who first envisioned the present expanded upper campus of the University, and indeed who made it possible by his extensive purchasing of lands surrounding the original upper campus.

In 1935, two stories were added to the Mechanic Arts Building to provide additional classrooms and laboratories. The name was changed to George H. Brimhall Building. During the year 1935-36, a Stadium House on the west side of the football field was erected. In 1937-38, Allen Hall, a men's dormitory, and in 1938-39, Amanda Knight Hall, a women's dormitory, were constructed. These will accomodate 90 and 130 students, respectively. The construction of both buildings was financed by borrowing from the Knight Endowment Fund. The Joseph Smith Building was begun in 1939 and completed in 1941 as a project of the Church Welfare program. During 1943, the University acquired the National Youth Administration Building on the east part of the campus for use of the Mechanic Arts Department. In 1944, because of the acute housing problem created by the building of the Geneva Steel plant, it was equipped to serve as a temporary dormitory for women.

Administration of Howard S. McDonald. Howard S. McDonald, the next president of the University, served from July 1, 1945, to October 30, 1949. Before being appointed to this position he had served as Assistant Superintendent of Schools in San Francisco, and later as Superintendent of Salt Lake City Schools.

Under his leadership the school experienced a major expansion. From 1946 to 1948 the temporary women's dormitory at the southeast end of the upper campus was remodeled into what is now known as Social Hall, containing a large dance floor and classrooms and offices used by the Music Department. During the same period Knight-Mangum Hall, a four-level structure adjoining the Social Hall on the west, was constructed. This building provides housing and feeding accommodations for 280 women. Because of the enlarged, post-war student body, student housing facilities were greatly increased. In cooperation with the Federal Works program, temporary housing, known as Wymount Village, was constructed in 1946-47 near the eastern edge of the campus for 200 married veterans and 350 single veterans. Also under the Federal Works program of aid to education, temporary-type buildings were provided in 1946-47, consisting of the present Nursing Building, Student Health, the North Building, Industrial Arts, Wymount Dining Hall, and the University Press. In 1948 the Speech Department was moved to the Upper Campus and housed in temporary buildings. Here the Brigham Young

University broadcasting station, KBYU, is located. A central heating plant, costing $200,000, was constructed in 1946, consisting of two 250 HP boilers with space for two additional settings. An additional 500 HP boiler was added in 1949-50, and a large fourth unit will be installed during the summer of 1955.

It was under President McDonald's direction that the Eyring Science Center was begun and almost completed. Called by many educators the finest and most modern science building between the Mississippi and the Pacific Coast, it has four stories and contains approximately 150,000 square feet of floor space (practically the equivalent of the space in all of the other buildings of the University previously constructed). It is equipped with the finest facilities for study and research. Moreover, it is proof of the Church's sincere belief that there is nothing inconsistent between scientific truth and the teachings of the Gospel.

During his administration the planning and architectural drawings of buildings for the University were assigned to a University architect. The buildings and grounds were placed under the direction of a superintendent of buildings and grounds.

In the post-war era of expanding collegiate enrollments, the Brigham Young University, under his direction, expanded at a much faster rate than many other universities of the country. The faculty was increased to meet the new need. The Graduate School and the Student Counseling Service were both reorganized. As was true with his predecessors, he upheld and perpetuated the spiritual ideals of the University's academic life.

Administration of Christen Jensen. Dr. Christen Jensen acted as president of the Brigham Young University during 1939-40 (when Dr. Harris spent a year in Iran) and again from November 1, 1949, until the early part of 1951. His two periods of administration were characterized by an emphasis on scholarship and a meticulous observance of proper University standards. In an era of dynamic university problems, President Jensen directed an administration characterized by academic and administrative stability and sound judgment. Under his direction the Eyring Science Center was completed and dedicated on October 23, 1950; the plans for the new George Albert Smith Fieldhouse were approved, a drive for funds conducted, and its construction practically completed at a cost of over $1,000,000. It provides, in addition to athletic and physical education facilities, offices for faculty members in the College of Recreation, Physical and Health Education, and Athletics. The building accommodates more than 11,000 persons, which makes it the largest auditorium in the intermountain west. It was during his administration that all members of the Quorum of Twelve became members of the Board of Trustees.

Administration of Ernest L. Wilkinson. In 1950 Dr. Wilkinson was selected by the Board of Trustees as the new president. He began his period of service in February, 1951.

After graduating from Brigham Young University, he was graduated from George Washington University Law School, where he received his LL.B. degree. He then attended Harvard Law School, where he obtained the degree of Doctor of Juridical Science. After graduation he accepted an appointment to teach at the New Jersey Law School as Professor of Law. Soon thereafter he was invited to become an associate in the New York City law firm of which the Hon. Charles Evans Hughes, later Chief Justice of the Supreme Court of the United States, was the senior member. Later, organizing his own firm in Washington, D.C., Dr. Wilkinson achieved a national reputation as a lawyer, climaxed by obtaining judgments of $32,000,000 for the Ute Indians, the largest judgments ever entered in the United States Court of Claims against the United States.

As a churchman, he has served as a bishop in the New York Stake and as a member of the stake presidency in the Washington Stake, and he has represented the Church on the National Commission for Army and Navy Chaplains, which approves chaplains appointed to the armed forces of the United States.

During his five years of service the University has experienced a 75 per cent increase in enrollment. In 1953, the University became the largest church-related institution of higher education in the United States. The faculty has witnessed an even larger proportionate increase in numbers, and the five Colleges previously comprising the University have been increased to nine, as follows:

Colleges of Biological and Agricultural Sciences; College of Commerce; College of Education; College of Family Living; College of Fine Arts; College of Humanities and Social Sciences; School of Nursing; College of Physical and Engineering Sciences; and College of Recreation, Physical and Health Education, and Athletics.

In 1951, a Reserve Officer Training Corps unit of the Air Force was activated at the Brigham Young University. The officers of this unit have been selected by the Secretary of Air, with the approval of the President of the University. This unit is composed entirely of students regularly enrolled at the Brigham Young University, and the same standards of conduct and living are required of them as of other students at the University. In accordance with an agreement with the Federal government, a building was completed in October, 1952, which serves as a permanent indoor rifle range for the R.O.T.C.

During the administration of President Wilkinson, the following new buildings, costing a total of more than $5,500,000, have been added to the facilities of the University:

The Herald R. Clark Student Service Center was begun in July, 1952 and was completed and made available for occupancy in March 1953. The financing of this building was primarily from income of the Student Supply over its years of operation. In the building are housed, in addition to the bookstore itself, the Extension and Audio-Visual Aids Divisions, the Student Body offices and organizations, student publications, and Student Services such as employment, housing, and a post office.

The largest single building project ever undertaken on the BYU campus was started July 1952 with the construction of 16 buildings making up what is known as Heritage Halls. These buildings, completely modern in every respect, can house 972 girls. Six girls live together in an apartment, preparing their own meals and doing their own housework. There are ten apartments to a building. Occupancy of the first of the buildings was begun in March 1953. The entire project was completed and fully occupied by the fall quarter of 1953.

The Engineering Building, constructed in 1953, has four wings which provide laboratory space for Civil, Mechanical, Electrical, and Chemical Engineering Departments, and a central portion, part of which is being used temporarily as offices for the Counseling Service.

In 1953 a motion picture building with sound stage and related facilities was constructed. This building is equipped with the most modern animation and motion picture sound equipment for the production of educational moving pictures used throughout the Church.

The David O. McKay Building, a classroom building containing 104 offices and 31 classrooms and laboratories, was begun in March 1954. It was completed and ready for occupancy in December of the same year. Currently housed in this building are the College of Education, and the Departments of English, Modern Languages, History and Political Science, and sections of the Department of Religion.

In the early spring of 1955, a Botanical Laboratory, with two connecting greenhouses, was completed. This structure is used by the Botany, Agronomy, Horticultural, and Landscape Architectural Departments.

A new Student Health Center was opened for use of all students enrolled at the University in the fall of 1955. The lower floor of this new structure is currently used as headquarters for the A.F.R.O.T.C.

Construction of an additional eight new apartment-type residence halls for women was started in the early summer of 1955. This brings total occupancy for this type housing for women to 1,539. Two of the new buildings were completed for occupancy at the beginning of the 1955-56 winter quarter. The balance will be completed and available for occupancy for the fall quarter of 1956.

In the fall of 1955 construction began on the Joseph F. Smith Building, Family Living Center, to house the College of Family Living, the School of Nursing, and the Departments of Psychology and Sociology.

Many new projects have been authorized by the Board of Trustees to keep pace with the expanding needs of the University and are in various stages of planning development. Among these new projects are residence halls for men, a new women's gymnasium, a swimming pool, a new library, and a student commons building.

The University Today

Unification Plan. In every era of the Church its leadership has been sensitive to the need of continued intellectual and spiritual growth for its members. To meet this need, Church educational policies have constantly been adapted or modified to serve more fully the youth of the Church.

It was in such a spirit that all Church educational institutions were combined in July 1953 under one Administrator, Ernest L. Wilkinson, who in turn is subject to a Board of Trustees for Brigham Young University, and a Board of Education for the rest of the Church School System. Both Boards, however, consist of the First Presidency and the Council of the Twelve. In announcing this unified plan the First Presidency said: "This great system of schools, institutes, and seminaries can become an evermore effective instrumentality in equipping the youth of the Church with solid foundations to meet the challenge of modern living." It added that Dr. Wilkinson "has surrounded himself with strong men to do a big job," and that "he will have at his service the strength not only of these men, but of all the members of the Brigham Young University Faculty."

Since the approval of this plan during the summer of 1953 the administrative offices of Church education have been established at Brigham Young University. Thus Brigham Young University becomes the Mother Institution for Latter-day Saint education. From this campus a spirit of simplifying efficiency, economy, uniformity of standards and procedures, and even wider cooperation and harmony can now weld all phases of Church educational work into a stronger unit than ever before.

Ernest L. Wilkinson, Administrator of the Unification Plan, continues as President of Brigham Young University. Assisting him are three Vice Presidents: Harvey L. Taylor, executive assistant; William E. Berrett, in charge of religious education; and William F. Edwards, in charge of finance and business administration.

Under this new plan, established schools, seminaries, institutes, and colleges continue their functions. Changes will be brought about as need and the growth of the Church dictate. In addition, each institution shares its particular problems and philosophies with its sister institutions, as coordinated and interpreted by the Administrator and his assistants.

Academic Growth and Recognition. The Brigham Young Academy as originally organized by Karl G. Maeser had three departments, the Academic, the Intermediate, and the Primary. Instruction was given mostly in the work of the lower grades, although a normal class was included in the Academic department. Today the University offers a full university curriculum, and its credits are recognized and accepted to the same extent as those of other leading American colleges. The Brigham Young University is on the approved list of the following educational organizations and associations.

Association of American Universities
Northwest Association of Secondary and Higher Schools
American Council on Education
Association of American Colleges
American Association of University Women
National University Extension Association
American Association for Adult Education
American Chemical Society
The National Commission on Accrediting
The American School of Oriental Research
American Association of Colleges for Teacher Education

Growth of Student Body. When founded in 1875, Brigham Young Academy gave elementary and high school work only. Over the eighty years of its existence it has become in terms of full-time equivalent students the largest university in Utah. At the present time it is experiencing a rapid growth, which, if continued, will soon make it one of the large institutions of the West.

At the time of its organization in 1875, nearly all of the students came from Utah County and its environs. Its student enrollment began at 29. During the regular 1955-56 school year it had on the campus approximately 9,500 daytime resident students. These, together with students of the Summer School, Brigham Young High School and Training School, and Extension Division, bring the total of students served to more than 14,000 for the year.

The students registered during the last few years came from the forty-eight states of the Union, the District of Columbia, the territories of Hawaii and Alaska, and from 29 foreign countries. Approximately 54 per cent of the students are from outside the state of Utah, and this percentage is increasing each year.

On January 8, 1956, the Brigham Young University Stake was organized on the campus. The twelve new wards will assure maximum participation by each student. This new Stake permits greater spiritual growth so that every student may develop a stronger testimony of the divinity of the Gospel of Jesus Christ and live more nearly in accordance therewith. Its program is integrated with that of the University in its auxiliary organizations and its social activities.

All students, except those living at home and married couples temporarily living in wards off the campus, will become members of the new Stake and will remain so until they terminate their schooling at the "Y." Ample opportunity is thus afforded each student to remain active in Church affairs while he pursues his academic training at the University.

As in the days of Dr. Maeser, industry and thrift are encouraged, and at the present time approximately 40 per cent of all students are employed, earning a part or all of their subsistence.

Membership in the Church of Jesus Christ of Latter-day Saints is not required for admission, although at the present time 97 per cent of the students are members of the Church. The other three per cent, as a condition of their continuance as members of the student body, are required to live the same standards as other students, which include graciousness in personal behavior, conformance to Christian ideals in everyday living, a high standard of morality, and abstinence from the use of alcohol and tobacco.

SCIENCE AND ART COLLECTIONS

The Archaeological Collection consists of materials for study and research in the early history of man. Original antiquities on display, illustrating the early history of man in the Old World, range from crude stone "hand axes" of the Old Stone Age to inscribed tablets and other advanced products of the ancient biblical civilizations of the Near East; while those illustrating the early history of man in the New World include representative artifacts of the early Indian cultures of Utah and the Southwest, and antiquities of the ancient pre-Columbian civilizations of Mexico, Central and South America. Supplementing this exhibit are replicas of such famous archaeological monuments as the Rosetta Stone, key to the deciphering of the Egyptian hieroglyphics, and the "Tablet of the Cross" from the ancient Maya city of Palenque in Central America.

Also in the archaeological museum is a research archive of several thousand photographs and field card records of antiquities excavated or examined by archaeological expeditions of the University and other institutions.

The Botanical Collection includes a herbarium of liverworts, mosses, and vascular plants; and also an extensive series of preserved algae, fungi, liverworts, mosses, ferns, and seed plants. There is also included a series of plants which illustrate various plant diseases.

The herbarium is made up principally of plants collected throughout the Western States, but many species from other regions are included. The collection of North American plants includes 170 families, 1,000 genera, and 3,500 species, represented by about 20,000 herbarium sheets. There is also a collection of plants from Siberia, obtained by President F. S. Harris in 1929, as well as a small group of plants from Europe and from South America.

The Fine Arts Collection of paintings, sculpture, drawings, etchings, engravings, monotypes, lithographs, and reproductions of works of art are as follows:

I. Memorial Collections.

    1. The Lee Greene Richards Collection of 36 paintings.
    2. The James T. Harwood Collection of 90 paintings, etchings, and drawings.
    3. The John Hafen Collection of 24 paintings.

4. The Elbert H. Eastmond Collection of 64 paintings.
5. The John Willard Clawson Collection of 85 paintings and sketches.
6. The Maynard Dixon Collection of 85 paintings and sketches.
7. The Edwin Evans Collection of 61 paintings.
8. The Rose Hartwell Collection of 71 paintings.
9. The Rose Hartwell Crafts Collection.
10. The Joseph Imhof Collection of lithographs.

II. There are many other Utah artists represented in the Brigham Young University Fine Arts Collection, including George M. Ottinger, Daniel Weggeland, John Hafen, Loris Pratt, John B. Fairbanks, Samuel Jepperson, Minerva Teichert, Alma Wright, Waldo Midgley, Calvin Fletcher, Cornelius Salisbury, Joseph Everett, Henri Moser, Torlief Knaphus, Avard Fairbanks, Henry Rasmussen, B. F. Larsen, Edgar M. Jenson, Glen H. Turner, J. Roman Andrus.

III. Well-known national artists represented in the collection include Lee Randolph, George Elmer Browne, Fern Gary, Gordon Grant, Marie A. Hull, Haley Lever, Clarence Millet, Luis F. Mora, Chauncey F. Ryder, Matteo Sandona, W. Lester Stevens, Anthony Thieme, John Law Walker, J. Alden Weir, John Whorf, Eliot Daingerfield, George Pierce Ennis, John E. Costigan, George Henry Taggert, William Morris, Jon Corbino, J. Connaway, Robert Brackman, Peter Hurd, Marguerite Pearson, Henry W. Ranger, John Twachtman, John F. Carlson, Gene Kloss, Earle Loran, Emil Bistran, Uumberto Romano, and Lez Haas.

IV. Original etchings, lithographs, prints, including the work of Ernest Fiene, Rockwell Kent, Joe Jones, Reginald Marsh, Waldo Pierce, Herbert Dunton, Boardman Robinson, Otis Dozier, Lawrence Barrett, John Taylor Arms, Kaethe Kollwitz, Gene Kloss, Conrad Buff, and Reynold W. Weidenaar; there are also 24 Rembrandt replicas.

V. Oriental art, including Japanese paintings, prints, and reproductions.

VI. Reproductions of famous works of art, including various types of modern art.

VII. Large collections of slides, including natural color slides and the George K. Lewis memorial collection of kodachrome slides.

The Lotta Van Buren Collection of music and old instruments consists of a collection of rare old instruments, modern reproductions of old instruments, books on old instruments, a library of music written for old instruments, and many other articles such as costumes, pictures, etc., connected with the performance practices of music in earlier times.

Many of the instruments date from the 15th-18th Centuries. A viola da gamba once owned by George Frederic Handel is a part of this collection. Also included are five other viols, a cittern, an Arabian lute, a two-manual harpsichord, a virginals, an octavina, two clavichords, a hurdy-gurdy, and other such instruments. The Van Buren Collection is one of the very few collections in the United States which are in playable condition. Throughout the year concerts are given using these instruments.

The collection, housed in a specially furnished room, is open to the public.

The Geological Collections of the University consist of an unusually complete series of minerals and an interesting variety of fossils.

The minerals number many thousands and are representative of the great western mining districts together with hundreds of localities of note. Part of this collection once represented the nucleus of the famous Deseret Museum Collection of Salt Lake City.

The fossil series are representative of many states and typical world localities. Much of this material was also formerly a part of the Deseret Museum Collection. The vertebrate collection is especially rich in original fossils and casts of the characteristic mammalian fauna that lived in the western states during the immediate geologic past.

The Zoological and Entomological Collections of the University consist of a large series of identified vertebrate and invertebrate species of Utah and contiguous states. A complete series of fish, amphibians, reptiles, birds, and mammals of this region are to be found in the collection. The fish collection is especially rich in species and specimens from the intermountain region. The bird collection consists of about 4,500 skins, 1,000 of which were collected in the Magdalena River Valley of South America by Chester Van Buren in 1901-03.

The Entomological collections consist of 270,000 specimens. The Tom Spaulding Collection of Utah Lepidoptera, the Chester Van Buren Collection of South American Butterflies, the Charles W. Long Weevil Collection, the Charles Schaeffer Weevil Collection, and many species of weevils from the Blatchley Collection form important portions of this collection.

The natural history collections consist of a complete collection of Utah fish, amphibians, reptiles, birds and mammals. This collection is also supplemented by the Chester Van Buren collection of birds of the Magdalena River of Columbia, the David Starr Jordan collection of fish from the Hawaiian Islands, and a collection of reptiles from Oceania and the Philippine Islands. The entomological collection contains authoritatively named specimens in all the orders of insects. The pinned insects are placed in 450 trays, 18x19 inches in size, 2 inches deep. The specimens are pinned in unit boxes. The Lepidoptera collection is fairly complete, containing specimens from Utah and the Great Basin region. It contains over 600 named species and 10,000 specimens. It is made up of the famous Tom Spaulding collection and the Chester Van

Buren collections. The Coleoptera collection contains over 6000 determined species and 50,000 specimens. It contains a fairly complete collection of weevils, the Charles W. Long collection of 1676 species, 300 species from the Blatchley collection, and the Charles Schaeffer weevil collection consisting of 813 species. A large collection of insects was made by staff members and former students in the South Pacific Islands, 1942-45. Many types, cotypes, and paratypes of specimens are in the collections. All these collections are housed in the fireproof George H. Brimhall Building.

These collections are being added to annually by means of collection expeditions that are sent out to various parts of the western United States. During 1944-45, 1,000 specimens of reptiles and 25,000 specimens of insects were received from staff members and former students who were on duty in the South Pacific.

CAMPUS LIBRARIES

The Heber J. Grant Library Building contains the general library collection, which includes over 225,000 bound volumes, several thousand pamphlets, and an extensive collection of titles on microfilm and microcards. A good selection of professional journals and of other current periodicals, as well as local, regional, and national newspapers, is also available.

The Brigham Young University Library is a depository for United States government documents and receives regularly publications of state and local governments. The general library facilities are available to students, faculty, alumni, and other interested persons. Regularly enrolled students present their activity cards to borrow books. Others may obtain a permit from the Circulation Librarian. The library is open, during the college year, from 7:30 a.m. to 10:00 p.m., Monday through Friday and from 9:00 a.m. to 5:00 p.m. Saturdays. It is closed during assemblies each Tuesday and Thursday from 9:45 to 11:00 a.m. Vacation hours, when school is not in session, are 9:00 a.m. to 5:00 p.m., Monday through Friday, closed Saturdays.

There is study space available in several buildings on campus. This includes three library reading rooms in the Grant Library, two in the Science Library, one in the McKay Building, and one in the High School Library on Lower Campus.

The Science Library is on the main floor of the Carl F. Eyring Science Center. Books and periodicals in the following subject fields are housed in this collection: Physical Science, Radio, Engineering, Photography, and Antiquities. The university map collection is located in the map room of the Science Library.

The Phonograph Record Library is on Lower Campus in Room 218, Education Building. There are accommodations for both individual and group listening. All students and faculty are invited to use these facilities. Libraries are also maintained in connection with the two laboratory schools on Lower Campus. These are available to students majoring in the College of Education as a part of their training program.

In Room 160 of the Student Service Center the Journalism Department maintains a reading room containing current copies of daily newspapers, news magazines of the United States, and daily and weekly newspapers of the Intermountain region. A collection of periodicals in Agriculture is located in Room 160 of the Brimhall Building.

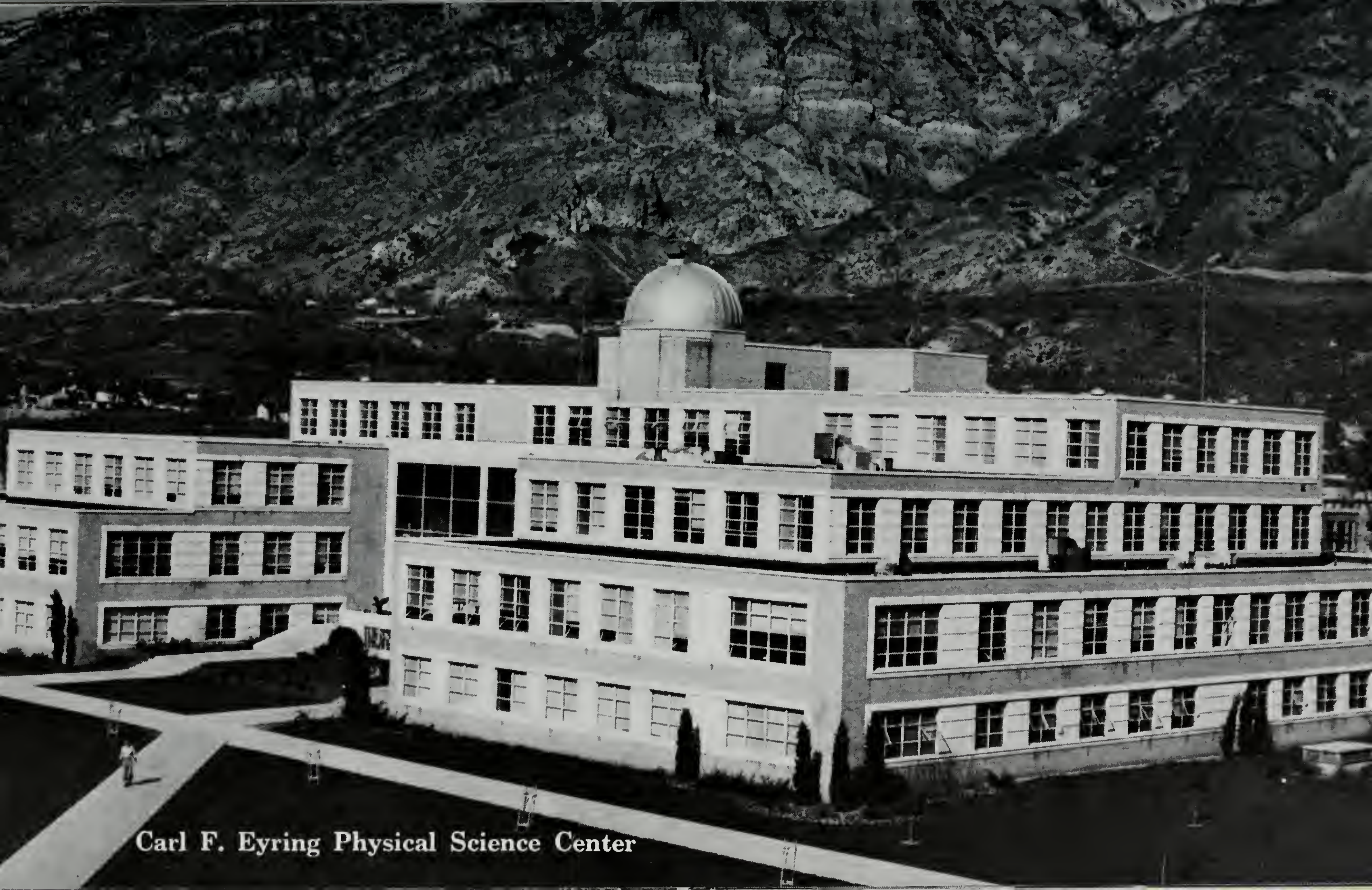
The Special Collections of the university library are located in the Heber J. Grant Library Building. The books and other material housed in this area are not available for general circulation. Such collections often come to the library from individuals whose interests lead them to devote many years to their acquisition. The material within each collection is usually confined to a specific subject area. The Brigham Young University collection of Mormon-Americana, the William Gates collection of Middle-American Linguistics, and the National Welsh Library of America are an indication of the variety of materials available in Special Collections.

The facilities of other libraries operated by the L.D.S. Church are also available to students of the Brigham Young University. The L.D.S. Genealogical Society Library, located at 80 N. Main Street in Salt Lake City, is open every day except Sunday. This collection contains approximately 55,000 books and 125,000 rolls of microfilm. These include family histories, genealogy, biography and autobiography, military records, cemetery inscriptions, town, county and state histories of the United States and both local and national histories of other nations.

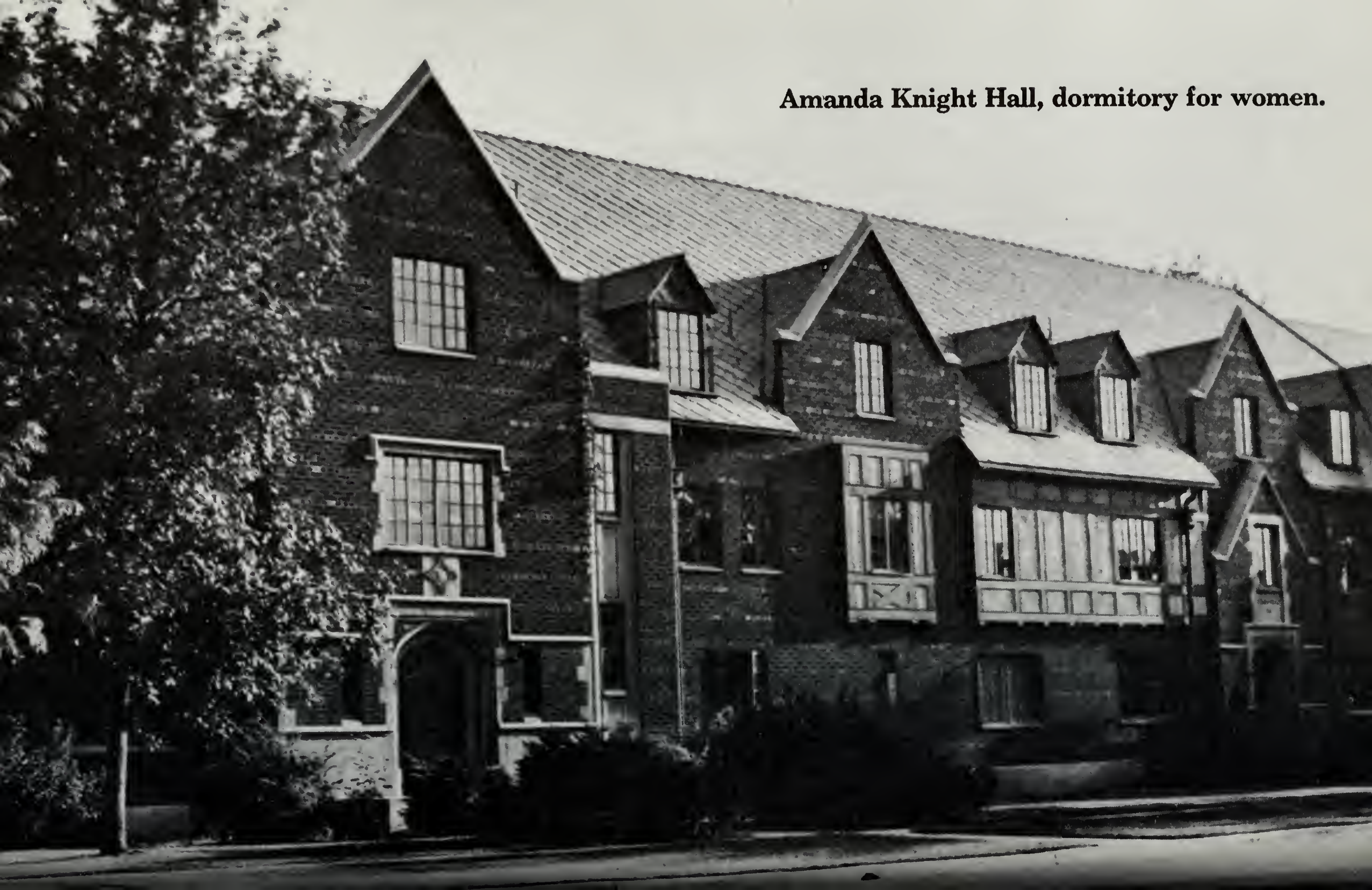
Facilities of the Library of the Church Historian's Office are available to advanced students for research, by arrangement. It is located in Room 103 of the L.D.S. Church Office Building, 47 E. South Temple, in Salt Lake City, and is open from 8:30 a.m. to 5:00 p.m., Monday through Friday. Its collections contain publications of the Church, periodicals of the various auxiliary organizations, reports and histories of the various missions, general history of the Church, biographies of Church leaders, and other pertinent published and archival material.

MOTION PICTURE PRODUCTION

The Department of Motion Picture Production has been established to produce documentary, historical, and training films for use in the Church and in schools. A correlated program with drama, music, art, writing, and all creative departments on campus will be used to produce films for instruction, elevision, and public relations.



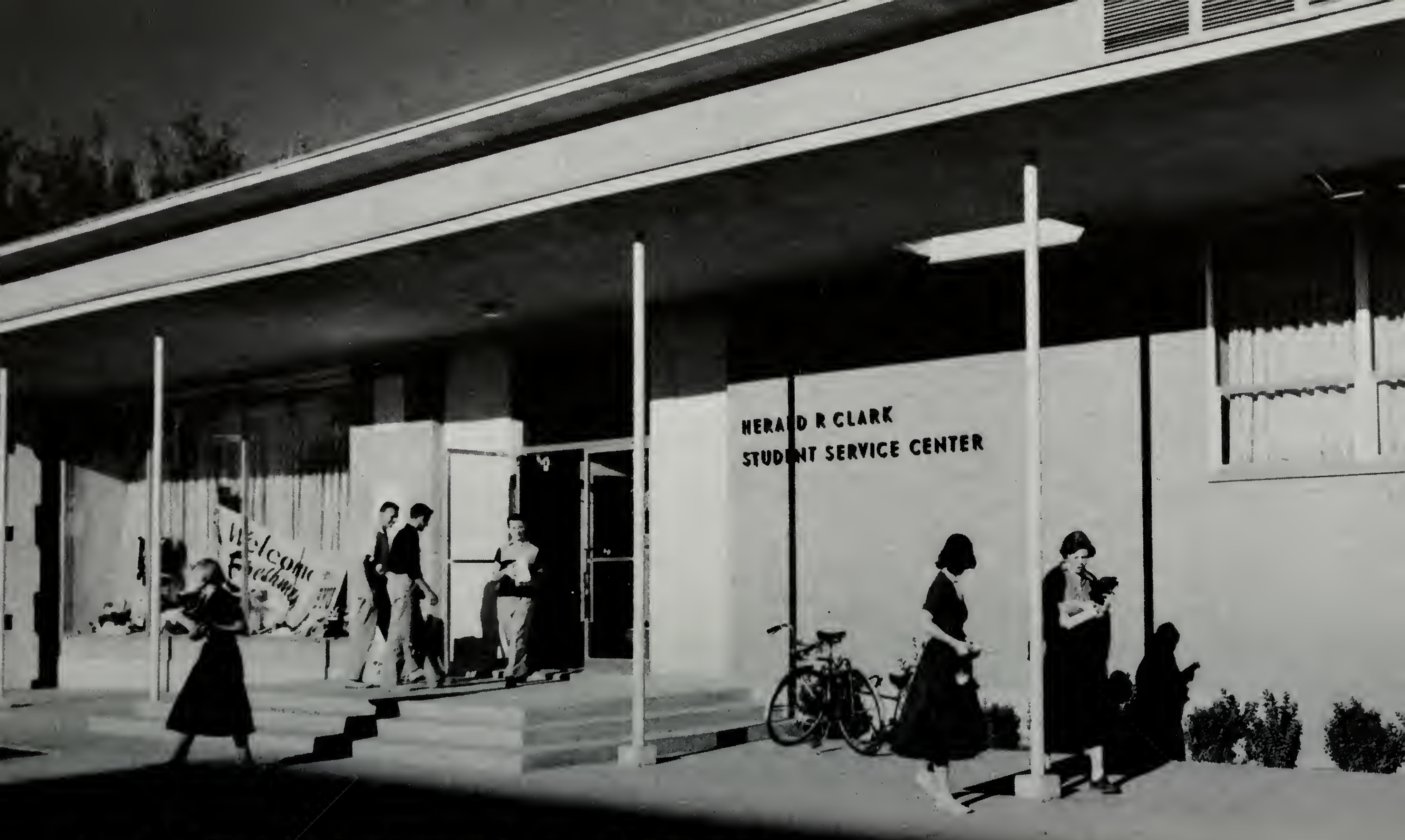
Carl F. Eyring Physical Science Center



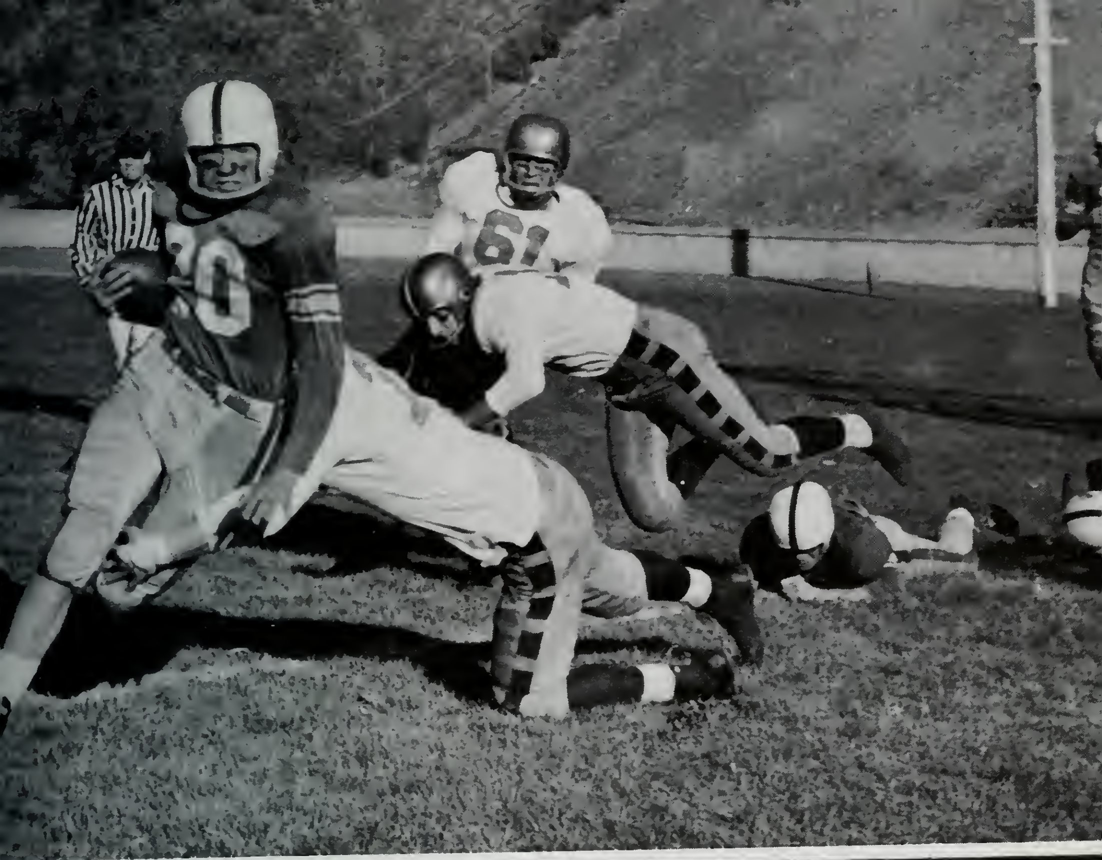
Amanda Knight Hall, dormitory for women.

Foucault Pendulum in lobby of the Eyring Science Center

After Devotional Assembly


HERALD R CLARK
STUDENT SERVICE CENTER
Welcome Freshmen

Herald R. Clark Student Service Center and Bookstore



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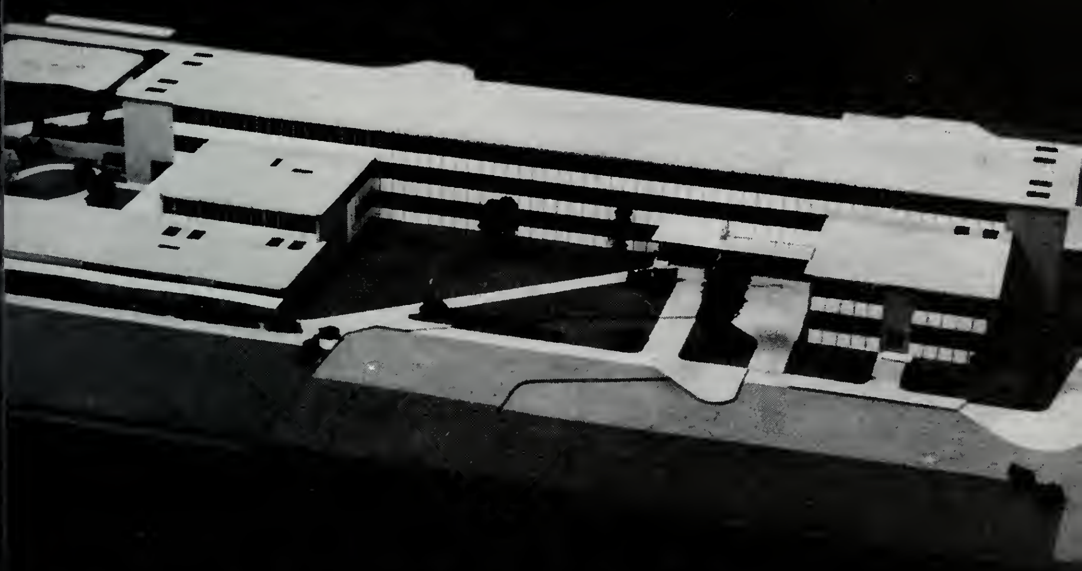
George H. Brimhall Building



l of the Joseph F. Smith Family Living Center,
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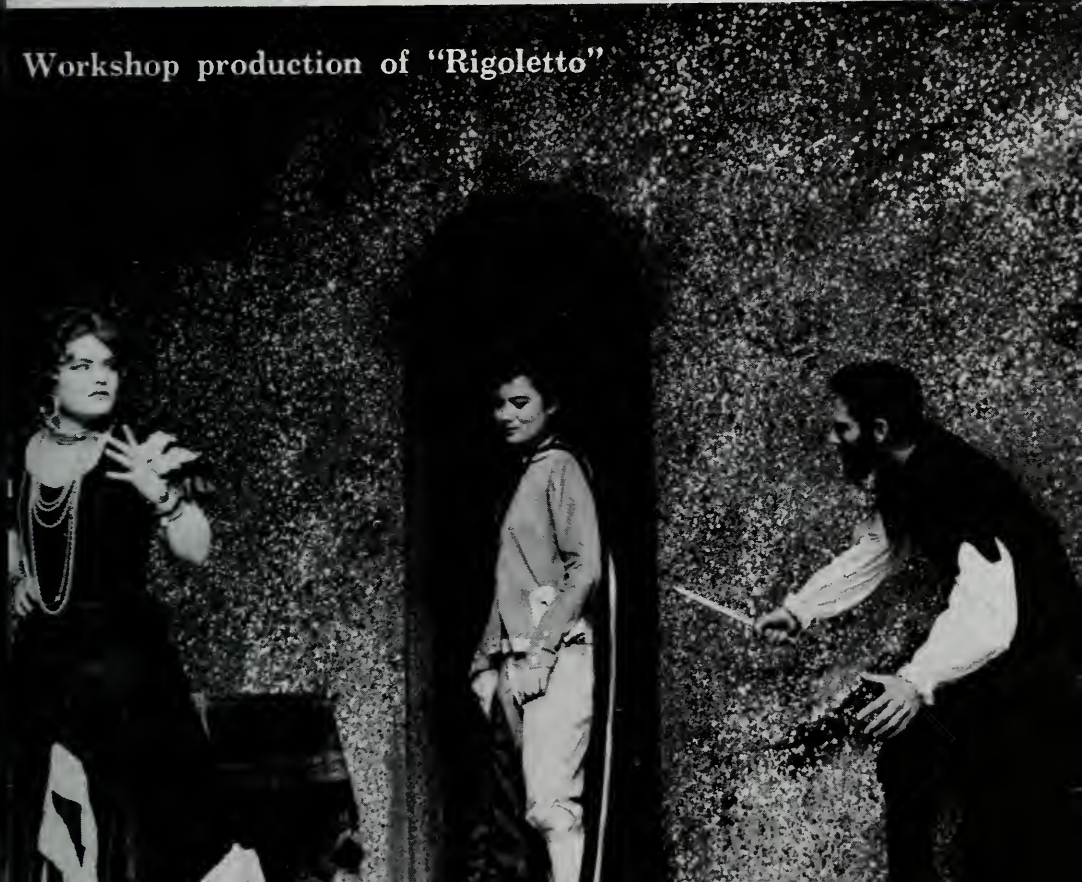

Joseph Smith Memorial Building and

General Requirements for Undergraduate Work

Admission

Admission to the University is granted on the basis of an official application, the form for which will be furnished by the Admissions Office on request of the applicant.

Students planning to attend the University should submit their applications at least thirty days before the time of registration.

Students who apply for admission and are accepted by Brigham Young University are required to maintain ideals and standards in harmony with those of the Church of Jesus Christ of Latter-day Saints. The maintenance of standards of honor and integrity, of graciousness in personal behavior, of Christian ideals in everyday living, of a high standard of morality, and of abstinence from alcohol and tobacco is required of every student.

Among the requirements for admission to the University as a regularly matriculated student, an applicant must be a graduate of an approved high school and must have selected nine academic units from among the areas of English, mathematics, science, social science, and foreign languages. A student who has not graduated from high school, but has sixteen units (Carnegie units) of high school credit, may be admitted if his course of study and grades are approved by the Admissions Committee. Students of low scholarship may be denied admission.

Some departments and colleges have additional requirements for admission. Students should consult other sections of the catalog to learn about these requirements.

A student nineteen years of age or over who has not met the academic requirements specified for regular admission may, after clearance by the committee on admissions, be admitted to the University as an unmatriculated student. He may pursue any course for which he has sufficient educational background but may not graduate without becoming regularly matriculated. Students nineteen years of age or over and all veterans are permitted to register as regular matriculated students after the successful completion of the General Education Development Test.

All new freshmen and sophomores are required to take the University Entrance Test at orientation time or as scheduled by the University.

Students who are planning to enter the Graduate School should consult the Graduate School section of the catalog for information on admission.

All new students seeking admission to the University will be furnished a medical examination form by the Admissions Office. This form must be completed by a licensed M.D. and returned to the Admissions Office. Registration cannot be completed unless the medical application form has been processed and returned to the University.

Course Divisions

Undergraduate courses of study are divided into:

(a) Lower Division
(b) Upper Division

Lower Division courses are numbered in the catalog from "1" to "99," upper division courses from "100" to "199."

Graduate courses are given numbers "200" and above.

Election of Studies

The student, in electing his studies, should, with the advice and approval of the dean of the college in which he registers, elect such studies as are desirable. The major and minor, as well as the general, requirements for graduation should be kept in mind in electing studies. Each student is required to take Health 1 sometime during his freshman year and one lower division physical education course during each quarter of his freshman year. However, Air Science students need take physical education only two quarters, as two years of Air Science reduce the graduation requirement in physical education to two hours.

Should a resident student desire to take courses by correspondence or in extension classes, the approval of the student's dean must be secured, and the correspondence or extension work entered upon the regular registration card. Students will be held responsible for any unauthorized over-load for which they register and such credit will not be allowed. Resident students of other institutions who apply for correspondence or extension class work at this University must have their proposed registration approved by the president of the institution in which they are registered. Students wishing to transfer correspondence credits from other institutions are subject to examination by the University department concerned.

At least five quarters of lower division work should be completed before the student registers for upper division work, unless in certain sequences the dean, with the consent of the instructor, advises otherwise. Included in the lower division work must be English 1a or 1; 2 or 12; and 3 or 13; and, for the A.B. degree, twelve hours in foreign language work. In order to qualify for the Bachelor of Arts degree, a candidate must furnish a training equivalent to 24 hours of college credit in a foreign language.

Classification of Students

At the beginning of each quarter regular students will be classified for that quarter as follows:

Credit hours earned	
0 to 46	Freshmen
47 to 92	Sophomores
93 to 139	Juniors
140 and over	Seniors

A student who has met the entrance requirements but who registers for nine hours of work or less will be classed as a "special student."

A regular student who has completed all requirements for the bachelor's degree is classed as a graduate student from that time on and must register in the Graduate School regardless of whether he registers for graduate or undergraduate courses in residence or extension or for study not intended to be used for a higher degree. Admission procedures to the Graduate School are indicated in the Graduate Catalog and apply to those who have graduated from Brigham Young University as well as from other universities.

Credits

A student may have credit entered on the books of the University as follows: 1. For work done in the regular courses offered by the institution. 2. For work done in an accredited college when such credit is to be used for graduation from the University, the amount to be determined by the Committee on Admissions and Credits. 3. By passing a satisfactory examination in any course offered by the University under the supervision of the head of the department concerned. Credits from other schools should be filed with the Registrar upon entrance.

Special examinations for credit will be given only with the consent of the head of the department concerned, the dean of the college in which the student is registered, and the Committee on Admissions and Credits.

An incompleted course of study may be completed during the next regular quarter of the student's residence, provided that the next quarter of residence is within one year of the time of the failure to complete the course. If a student does not complete a course within the prescribed time, his grade for the course automatically becomes an "E."

By payment of an auditing fee, a student may obtain permission to audit courses of instruction. Under no circumstances can credit be obtained by means of special examinations for courses which have been audited.

A fee of $3.00 per credit hour is charged for special examinations, provided the total fee for any one subject does not exceed $25.00.

It is the policy of the University to send quarterly grade reports to the parents of unmarried freshmen students under twenty-one years of age and to parents of all unmarried students who are on failure or probationary status.

Withdrawal from Classes

Students discontinuing registration at the University are required to clear their termination through the office of the Dean of Students.

Students withdrawing from individual classes shall clear with the Dean of the College or the Chairman of the Counseling Service.

a. If a student officially withdraws from a class during the first three weeks of a quarter, the permanent record will show no registration for the class in question.

b. If a student officially withdraws from a class during the second three weeks of a quarter, the permanent record of the student will show the letter "W" for the class in question.

c. If a student officially withdraws after the first six weeks of each quarter, his permanent record will show "W" for classes in which the student is doing passing work at the time of withdrawal and "WE" for classes in which the student is doing failing work at the time of withdrawal. A "W" grade does not count for or against grade points in computing the grade point average. A "WE" grade counts the same as an "E" grade in negative points in computing the grade point average.

d. If a student drops a class any time during the quarter without officially withdrawing, he will receive a grade of "UW" (meaning unofficial withdrawal) in every course so dropped. This will indicate that the student has failed to clear officially with the University. This grade will count in grade points the same as a failure grade of "E."

Withdrawal from Evening School Classes. Any student who wants to withdraw from a class for which he registered in the Extension Division Office must do so by notifying the Extension Center and completing the withdrawal forms. An evening school student who does not properly withdraw will receive a failing grade.

University Credits Recognized

(See The University Today, pp. 66-67)

Limitation on Credit in One Quarter

Undergraduate students in good standing may register for as many as 17 hours of credit in any one quarter by following the regular registration procedures. In the case of a student who has academic ability of high quality, the Dean of a college or the Chairman of the Counseling Service may authorize the student to register for a maximum of 18 hours for the first quarter in residence and a maximum of 19 hours for any succeeding quarter. Any student who has been in residence for one quarter or more and has a cumulative average of 2.5 (or a 2.5 average in the quarter previous to registration) may register with the consent of his Dean, for 21 hours. Any exceptions to the above rules shall be presented to the Deans' Council for consideration.

Discipline

The maintenance of standards of honor and integrity, of graciousness in personal behavior, of Christian ideals in everyday living, of a high standard of morality, and of abstinence from alcohol and tobacco is required of every student. A student's having improper associates or visiting places of questionable repute will not be tolerated.

Any pronouncement of disciplinary measures made by the President of the University becomes a part of these regulations. Violations of regulations make the offender liable to suspension or expulsion from the University.

Academic Standards

Students at Brigham Young University are required to demonstrate scholastic proficiency. Students who fall below the following requirements shall be subject to being suspended from the University for low scholarship.

Grade point averages are computed on a basis of 0 for E's, 4, 3, 2 and 1 points for each credit hour of A, B, C, and D respectively.

a. All first quarter freshmen (0 to 18 credit hours) are required to make a 1.5 grade point average, or higher, in order not to be placed on academic probation.

b. A second or third quarter freshman or sophomore (19 to 92 credit hours) who fails to make a 1.75 grade point average, or higher, shall be placed on probation.

c. Freshmen and sophomores may be allowed a maximum of two successive quarters of probationary status.

d. A junior or senior (93 or more credit hours) who does not maintain a cumulative grade point average of 2.0, or higher, at Brigham Young University shall be placed on academic probation.

e. Juniors and seniors may remain on a probationary status only so long as they make a quarterly grade point average of 2.0, or higher, each quarter that they are on probation.

f. Any student who, through negilgence or lack of effort, does not make satisfactory progress in his University work shall be discontinued from the University.

g. Students admitted and readmitted on probation are allowed only one quarter of probationary status and are required to make the same grade point average as other students of their class.

h. Graduate and special students are required to make a grade point average of 2.0 or higher. Failure to do so results in their being placed on academic probation. These students are allowed two quarters of probationary status.

Reservation of Right to Change Courses

At the time of printing of this catalog, the University intends to give the courses listed herein, but reserves the right to eliminate or discontinue any of them or to add new ones.

Graduation

General Requirements

For a student to be admitted to candidacy for a diploma or a degree, his scholastic record must show that he has satisfied the entrance requirements and that he can fulfill all the requirements for graduation on the completion of the courses for which he is registered. At the time of graduation each candidate must be properly registered in the University and must have completed at least forty-five hours of work in residence.

The following graduation requirements apply to all candidates for a bachelor's degree from any of the colleges of the University:

Total amount of credit	186 hours
Upper division work (minimum)	60 hours
Requirement for a major	30 or more hours
Requirement for a minor	20 hours

All candidates for a bachelor's degree to be awarded in 1959 or subsequent years must fill the group requirements listed below under the topic "General Education Requirements." Students graduating before 1959 may choose either to complete these requirements in full or to fill all group requirements as prescribed in the 1954-55 Catalog (hereafter referred to as the old program), which are also listed below. For students choosing the old program, departmental courses shall apply to the groups within which they have been classified under that program. It is recommended, however, that students under the old program endeavor to complete their group requirements from courses approved for the new program. Following is a summary of the new and old programs.

	New Program	**Old Program**
Physical Science	9 hours	12 hours
Biological Science	8 hours	12 hours
Social Science	15 hours	12 hours
Freshman Composition 1, 2, 3	9 hours	....
or		
Freshman Composition 12, 13	6 hours	....
English and Foreign Languages	....	18 hours
Humanities and Aesthetics	15 hours	....

Two credit hours in religion are required of every student for each quarter in residence, including the summer quarter. To be eligible for graduation, special students enrolled at Brigham Young University shall be required to accumulate credit in religion at the ratio of one credit hour to eight credit hours in other subjects taken in residence.

Five credit hours in American History and Government are required for graduation. (See Department of History.)

Student of the University are expected to maintain acceptable standards of usage in oral and written English in recitations, written assignments, examinations, and in all other academic work. This requirement will be enforced by teachers in all subjects and by the action of a committee representing the entire University.

Lower Division Courses required:

English 1a, 2, 3; or 1, 2, 3; or 12, 13.

Physical Education: Three credit hours in lower division (two hours for students taking two years of Air Science).

Health 1.

All freshmen except those enrolled in Air Science are required to take one lower division course in Physical Education during each quarter of the freshman year. Air Science students are required to take Physical Education two quarters. All students are required to take Health 1 sometime during the freshman year. Students desiring exemption from physical education for medical reasons must obtain an excuse from the University physician. Written statements from the local doctor must be approved by the University physician.

A candidate for a Bachelor of Arts degree is required to furnish a training equivalent to twenty-four hours of college credit in one foreign language. A candidate for a Bachelor of Science degree is not required to submit credit in a foreign language.

Seventy-five hours of extension credit may be counted toward a bachelor's degree. Of this amount not more than thirty-five hours may be correspondence credit.

Not more than twenty-eight hours of "D" grade credit will be applied toward graduation.

Students who expect to be graduated at the end of the spring quarter should file application with their deans not later than the beginning of the winter quarter. All conditions must be removed not later than 15 days before graduation.

Students who fulfill all requirements for graduation at the close of the summer quarter and who have filed applications for graduation not later than thirty days preceding the close of the spring quarter will participate in the Summer School Commencement exercises in August.

All graduating seniors must attend the graduation exercises unless they have been excused or have made satisfactory explanations of absence. Absence will be excused when based upon any of the following reasons:

1. Prior entrance into the armed services;
2. Work at the University completed prior to the spring quarter and present employment makes it impossible to attend commencement;

3. Serious illness or death in the family or some other emergency;
4. Enrollment in another school or university; or
5. Service in the mission field.

Students not officially excused from commencement will not be graduated until they attend a later commencement in person.

The University reserves the right to change the requirements for graduation, and a candidate for graduation will be asked to comply with all changes which pertain to the uncompleted portion of his course.

General Education Requirements

(Required of all students graduating in 1959 and thereafter)

The object of the general education requirements of the university is to introduce to the student as broadly and effectively as possible to fundamental fields of learning and assist him in coming to an understanding of some of the important influences that bear on human living. In order that these purposes may be achieved, the basic areas have been grouped, and specified courses within these areas have been approved from which students may select courses in fulfillment of general education requirements. The student is advised to fill these requirements by registering for courses in these groups at an approximate rate of four to five hours per quarter in addition to two hours in religion throughout his entire four years of study. Courses with prerequisites are preceded by a dagger (†).

,5' **1. Physical Science, 9 hours.** (Chemistry, Geology, Physics.)

Option 1. At least one course must be elected from two of the following three departmental lists, so that a minimum of nine credit hours is accumulated:

Chemistry 1	(3)	Survey Course in Chemistry
Chemistry 2	(5)	Introductory Inorganic Chemistry. (for Family Living, Nursing, and Agriculture students)
†Chemistry 3	(4)	Introductory Organic Chemistry. (for Family Living, Nursing, and Agriculture students)
Chemistry 7, 8	(5-5)	Introductory Inorganic Chemistry
†Chemistry 14, 15	(5-5)	Principles of Chemistry
1 Geology 1	(3)	Introduction to Geology
3 Geology 2	(1)	Introduction to Geology (may be taken only if accompanying Geology 1)
Geology 3	(3)	Life of the Past
Geology 11	(5)	Physical Geology
Physics 1	(3)	Essentials of Physics
Physics 2a, b, c	(3-3-3)	Fundamentals of Physics
Physics 16	(3) ✓	Descriptive Astronomy
Physics 21	(4)	Weather and Climate

†Physics 31, 32	(5-5)	General Physics (designed primarily for premedical and biological science majors)
†Physics 41, 42	(5-5)	General Physics (designed primarily for physical science and engineering majors)

Option 2. The Physical Science requirement may be met by completing all nine hours in Physical Science 1, 2, and 3 (3-3-3), with the understanding that no part credit in these courses may be used in fulfillment of Option 1.

Physical Science 1, 2, and 3 would be suitable for students having little background in science, as well as for those who intend to specialize in a scientific field.

-3 **2. Biological Science, 8 hours.** (Bacteriology, Botany, Zoology and Entomology.) To satisfy the general education requirement in biological sciences, the student must complete a minimum of 8 quarter hours of college credit. This shall include at least one of the following three courses: Bacteriology 21 (Bacteriology 101 for engineering students), Botany 1, or Zoology 11 (Zoology 11b for nursing and physical therapy students). The remaining requirements shall be satisfied by taking another of these three courses or any of the following courses approved for General Education in the Departments of Bacteriology, Botany, and Zoology:

Bacteriology 21	(4)	General Bacteriology
Bacteriology 101	(5)	Microbiology
†Bacteriology 121	(3)	Water and Sewage Bacteriology (for engineering students only)
Bacteriology 160	✓ (3)	Sanitation and Public Health
Botany 1	(5)	General Botany
Botany 2	(4)	The Plant Kingdom
Botany 3	(5)	The Classification of Seed Plants
Botany 10	(3)	Trees and Shrubs
†Botany 150	(5)	Plant Ecology
†Botany 165	(3)	Plant Geography
Botany 166	(3)	Conservation of Natural Resources
Entomology 30	(5)	Introductory Entomology
Zoology 11	(5)	General Zoology
†Zoology 18	(3)	Heredity (Botany 18 is cross-referenced to this course)
5 †Zoology 45	(5)	Elementary Vertebrate Anatomy and Physiology
Zoology 48	(5)	Human Physiology (family living students only)
†Zoology 146	(5)	Principles of Ecology and Bio-geography
Zoology 197	(3)	Natural and Human Resources

5 **3. Social Science, 15 hours.** (Economics, Human Development and Family Relationships, Geography, Political Science, Psychology, Sociology.) Not more than five hours of the fifteen hours credit in Social Science are to be represented by History 70, History 80, or their equivalent. At least two fields must be included in fulfillment of the remaining requirements of these

groups. Only the following courses may apply toward fulfillment of this requirement:

Economics 1	(5)	Economic Principles
Economics 161	(3)	Labor Problems
Economics 167	(5)	Government Finance
Geography 11	(5)	Introduction to Geography
Geography 12	(5)	Geography in World Affairs
Geography 23	(3)	Economic Geography
Geography 110	(5)	North America
Geography 130	(5)	Europe
†Human Development and Family Relationships 40	(3)	Child Development I
†Human Development and Family Relationships 102	(3)	Principles of Child Guidance
†Human Development and Family Relationships 120	(3)	Development and Adjustments During the Middle and Later Years. (Psychology 126 is cross-referenced to this course)
†Human Development and Family Relationships 160	(3)	Achieving Success in Marriage (Sociology 170 is cross-referenced to this course.)
†Human Development and Family Relationships 161	(3)	Family Relationships
5 History 70 or 80	(5)	The American Heritage
Political Science 5	(2)	Current Affairs
Political Science 10	(5)	American Government
Political Science 11	(5)	State and Local Government
Political Science 12	(5)	Comparative Government
Political Science 15	(5)	Introduction to International Relations
5 Psychology 11	(5)	General Psychology
†Psychology 22	(3)	Applied Psychology
†Psychology 120	(3)	Phychology of Childhood
†Psychology 122	(3)	Psychology of Adolescence (Either Psychology 120 or 122 (not both) may apply.)
†Psychology 140	(4)	Psychology of Personality
†Psychology 143	(3)	Mental Hygiene
†Psychology 145	(3)	Social Psychology
Sociology 11	(5)	Introductory Sociology
Sociology 12	(5)	Social Problems
Sociology 114	(5)	Social Psychology
Sociology 124	(3)	Introductory Criminology
Sociology 128	(3)	Race Relations
Sociology 140	(3)	Modern America

4. Humanities and Aesthetics, 15 hours. (Archaeology, Art, English, Literature, History, Modern and Classical Languages, Music, Speech.) In a fifteen hour total the student must take at least six hours of literature and some work in at least two of the following departments: Archaeology, Art, History, Music, Speech, and Philosophy. A full year's beginning course of fifteen hours credit in a modern or classical language shall carry six hours of credit toward the satisfaction of this group requirement and may reduce the requirement in literature to three hours. Only the courses listed below will be counted toward the fulfillment of the requirements.

Archaeology 1	(4)	Introduction to Archaeology
Archaeology 76	(2)	Cultures of the American Indians
†Archaeology 110	(3)	General Near Eastern and Biblical Archaeology
†Archaeology 118	(3)	General Classical Archaeology
†Archaeology 130	(3)	Ancient Civilizations of America
Art 1	(2)	Introduction to Art
Art 10	(2)	Theory and Practices of Design
Art 21, 22	(4-4)	Elementary Drawing
Art 27	(2)	Oil Painting
Art 33	(2)	Watercolor Painting
Art 59	(2)	Ceramics
Art 63	(2)	Crafts
Art 101	(2)	Aesthetics
Art 103	(2)	Ancient and Primitive Art
Art 104	(2)	Medieval Art
Art 105	(2)	Renaissance Art
Art 106	(2)	Art History and Appreciation
Art 107	(3)	Contemporary Art
Art 108	(3)	American Art

English Literature—The student should be allowed to take any literature course for which he appears to have adequate background. Especially recommended are the following:

Lit. 4 English 50	(4)	Introduction to Literature
English 61, 62, 63	(2-2-2)	Masterpieces of American Literature
2 English 71, 72, 73	(2-2-2)	Masterpieces of English Literature
English 82, 182	(4-4)	Shakespeare
English 156, 157, 158	(3-3-3)	World Classics
English 183	(3)	Milton

History 10	(5)	Ancient Civilization
History 11	(5)	Medieval and Early Modern Europe
History 20	(5)	U.S. to 1865
History 21	(5)	U.S. since 1865
History 50	(5)	Latin American Civilization
History 74	(5)	Economic and Financial History of the United States
History 100	(3)	Early Oriental History
History 101	(3)	History of the Far East
History 104	(5)	Greek History
History 108	(3)	History of the Roman Empire, 31 B.C. to 439 A.D.
History 112	(3)	Renaissance and Reformation
History 123	(3)	History of Europe, 1914 to Present
History 131	(3)	History of Russia, 1900 to Present
History 140	(3)	England to 1714
History 141	(3)	England since 1714
History 160	(3)	History of the American Frontier

History 166	(3)	History of Utah
History 172	(3)	The American Revolution and the Confederation
History 173	(3)	Intellectual and Cultural History of the United States

Modern and Classical Languages—The first year course in any foreign language fulfills six hours of the group requirement, provided that the student completes the entire course (15 hours). No credit on the group requirement will be given for part (5 to 10 hours) of the first year language course. The following courses may be applied to satisfy the literature requirement in the Humanities and Aesthetics groups:

†French 111, 112, 113	(3-3-3)	Masterpieces of French Literature
†French 131, 132, 133	(3-3-3)	Introduction to French Literature and Culture
†German 111, 112, 113	(3-3-3)	Masterpieces of German Literature
†German 131, 132, 133	(3-3-3)	Introduction to German Literature and Culture
†Italian 111, 112, 113	(3-3-3)	Masterpieces of Italian Literature
†Porguguese 111, 112, 113	(3-3-3)	Masterpieces of Portuguese Literature
†Russian 111, 112, 113	(3-3-3)	Masterpieces of Russian Literature
†Spanish 111, 112, 113	(3-3-3)	Masterpieces of Spanish and Spanish-American Literature
†Spanish 131, 132, 133	(3-3-3)	Introduction to Spanish Literature and Culture

(Prerequisite to the literature courses in foreign languages are 30 hours of the language or the consent of the instructor.)

Music 1	(3)	Survey Course in Music
Musicology 157	(2)	Sacred Music
Musicology 161	(2)	Sacred Music
Musicology 162	(2)	History of Sacred Music
†Musicology 184, 185	(3-3)	History of Secular Music

/ Participation in all choral and instrumental organizations (1 hour total)

2 Private instruction on any instrument or in voice (2 hours total)

†Speech 22	(3)	Interpretation of Literature
Speech 23	(5)	Fundamentals of Acting
Speech 24	(3)	Voice and Diction
Speech 124, 125, 126	(3-3-3)	Theatre History
Speech 172	(3)	Advanced Interpretation
Philosophy 108	(3)	Survey of Philosophy
Philosophy 110	(3)	Introduction to Logic
Philosophy 111	(3)	Philosophy of Science
Philosophy 112	(3)	Problems of Knowledge

5. Religion. In fulfilling the requirement that for each quarter of residence at B.Y.U. a student must complete two hours of credit in religion, freshmen and sophomores, with the exception of returned missionaries, should select their courses from the following areas:

Book of Mormon 11, 12, 13, 2 credit hours per quarter
Church History 31, 32, 33; 2 credit hours per quarter
New Testament 23, 24, 25; 2 credit hours per quarter
Theology 1, 2, 3; 2 credit hours per quarter
Theology 4, 5, 6; 2 credit hours per quarter
Church Administration 41, 42, 43; 2 credit hours per quarter

Juniors and Seniors should obtain a minimum of six hours in one or more of the following areas. All returned missionaries and transfer students ranking as juniors are not only permitted, but are expected to select upper division courses in religion.

Old Testament 101, 102, 103; 2 credit hours per quarter
Old Testament 104; 2 credit hours
Old Testament 111; 2 credit hours
New Testament 113; 2 credit hours
New Testament 114; 2 credit hours
New Testament 115; 2 credit hours
Book of Mormon 124; 2 credit hours
Book of Mormon 125; 2 credit hours
Doctrine & Covenants 131, 132, 133; 2 credit hours per quarter
Pearl of Great Price 138; 2 credit hours
Pearl of Great Price 139; 2 credit hours
Church History 101, 102, 103; 2 credit hours per quarter
Church History 104, 105, 106; 2 credit hours per quarter
Church History 107; 2 credit hours
Church History 114, 115, 116; 2 credit hours per quarter
Church Administration 101; 2 credit hours
Church Administration 111; 2 credit hours
Church Administration 117; 2 credit hours
Church Administration 118; 2 credit hours
Church Administration 121; 5 credit hours
Church Administration 122; 5 credit hours
Church Administration 149; 2 credit hours
Theology 101, 102, 103; 2 credit hours per quarter
Philosophy 108; 2 credit hours
Philosophy 110; 3 credit hours
Philosophy 111; 3 credit hours
Philosophy 112; 3 credit hours

Six hours of credit in the courses listed below may be applied toward a total of 24 hours of credit in religion as well as applying toward the other groups in which are they are listed.

Only those students enrolled under the new General Education Requirements may select this option:

†Archaeology 110	(3)	General Near Eastern and Biblical Archaeology
†Archaeology 130	(3)	Ancient Civilizations of America
English 150	(3)	The Bible as Literature
History 100	(3)	Early Oriental History

History 112	(3)	The Renaissance and Reformation
History 166	(3)	History of Utah
†Human Development and Family Relationships 40	(3)	Child Development
†Human Development and Family Relationships 102	(3)	Principles of Child Guidance
†Human Development and Family Relationships 120	(3)	Development and Adjustments During the Middle and Later Years (Psychology 126 is cross-referenced to this course)
†Human Development and Family Relationships 160	(3)	Achieving Success in Marriage ((Sociology 170 is cross-referenced to this course.)
†Human Development and Family Relationships 161	(3)	Family Relationships
Musicology 157	(2)	Sacred Music
Musicology 161	(2)	Sacred Music
Musicology 162	(2)	History of Sacred Music

The following courses in religion may be considered as applying toward the requirement in Humanities and Aesthetics:

Philosophy 108	(3)	Survey of Philosophy
Philosophy 110	(3)	Introduction to Logic
Philosophy 111	(3)	Philosophy of Science
Philosophy 112	(3)	Problems of Knowledge

Old General Education Requirements

The following group requirements were in full effect through the academic year of 1954-55. Any student graduating prior to 1959 may elect to fill his general education requirements according to the following groups which comprised the old program, rather than by following the new program outlined in the preceding section. These groups may be filled by students up until and including 1958.

1. Mathematics and Physical Science, 12 hours. (Mathematics, Chemistry, Physics, Geology, and Geography.) To satisfy the twelve-hour group requirement, the student is urged to take work in at least two departments. At least one of the courses taken must require no fewer than two hours of laboratory work each week.

2. Biology and Psychology, 12 hours. (Bacteriology, Botany, Zoology and Entomology, and Psychology.) To satisfy the twelve-hour group requirement, the student is urged to take work in at least two departments. At least one of the courses must require no fewer than two hours of laboratory work each week. Educational psychology, a professional course for prospective teachers, will not be accepted as fulfilling this group requirement.

3. Social Science, 12 hours. (Archaeology, Economics, History, Political Science, and Sociology.) To satisfy the 12-hour group requirement, the student is urged to take work in at least two departments. The required five credit hours in American History and Institutions may be used toward satisfying this group requirement.

4. English and Foreign Languages, 18 hours, at least 12 of which must be in English. This group must include English 1, 2, and 3. If a student has credit for at least two units of foreign language taken in high school, this group may be reduced to 14 hours.

Major and Minor Requirements

At the time of his graduation, the student must have completed at least thirty quarter hours in his major department and no fewer than twenty hours in collateral or minor subjects which meet the approval of the head of his major department.

When the prospective graduate's high school and college work shows marked evidences of deficiencies in grade of scholarship, in breadth of training, or in preparation for probable future activity, the head of the department, in consultation with the dean, may prescribe certain additional specified courses, according to the needs of the particular student.

Registration of Prospective Secondary Teachers

All certificates for teaching, counseling, supervising, administration, and library work in the public schools of Utah are granted by the State Department of Public Instruction.

When all requirements for State certification have been fulfilled, students of the University who are registered in any of its colleges, or in the Graduate School, will be recommended for certification by the Dean of the College of Education. This recommendation will be given just as readily to prospective secondary teachers who have registered in other colleges as to those who have registered in the College of Education, the Dean of the College of Education acting merely in an administrative capacity as the representative of the University. Students who wish to obtain a secondary teaching certificate may therefore register in either the College of Education or in the respective colleges in which their major subject matter fields are taught. Applicants for an elementary teacher's cerificate are required to register in the College of Education, except those who already hold the bachelor's degree, who must register in the Graduate School.

Each student preparing to teach in the secondary schools should be encouraged to make his own decision in selecting the college in which he should register. If the student feels that he will be aided most by registering with, and seeking continuous counsel from, those concerned primarily with the subject matter that he will teach, he should be encouraged to register in the particular college in which he selects his academic major. If he feels that he will be aided most by registering with, and seeking continuous counsel from, those concerned primarily with teaching as a profession, he should be encouraged to register in the College of Education.

Students who desire State certificates should make application with the Dean of the College of Education, who has the proper application forms in his office, and not with the State Department of Public Instruction. In this respect, as noted above, the Dean of the College of Education is acting for the entire University.

Scholarship Honors

In recognition of especially meritorious work, scholarship honors are granted to certain members of classes graduating with the bachelor's degree. Such honors will be accorded on the following basis:

First: There are two designations in recognition of high scholarship merit: Graduation with High Honors and Graduation with Honors.

Second: The award of Graduation with Honor is made on the basis of excellence shown in work up to, but not including, the spring quarter of the senior year.

A student receiving either type of scholarship honors must rank among the highest ten per cent in scholarship in the graduating class. Graduation with High Honors will be awarded to the highest three per cent, Graduation with Honors to the next seven per cent. This rating is determined by computing a grade-point average by weighting the grades as follows: "A" counts 4, "B" counts 3, "C" counts 2, "D" counts (1), "E" counts 0; and by dividing the total number of points by the number of credit hours carried.

Fourth: It shall be the duty of the Committee on Graduation to make selection of candidates in accordance with these provisions.

Fifth: The announcement of honor awards is to be made at the annual commencement exercises.

Term Honors: The University will post and publish at the close of each quarter of the regular school year the names of the students who have carried a minimum of 15 credit hours and earned a grade point average in all classes carried of 3.5 or above. Those having grade point averages of 3.5 through 3.7 will be on the Roll of Honor and those with grade point averages of 3.8 and above will be designated on the Roll of High Honor.

University Fees

(All fees are payable in advance)

General Fees

REGULAR COLLEGE AND GRADUATE STUDENTS

	Autumn Quarter	Winter Quarter	Spring Quarter	Total
Tuition	$45.00	$45.00	$45.00	$135.00
Building, Gymnasium, Student Activity and Health Fees	25.00	25.00	25.00	75.00
Total	$70.00	$70.00	$70.00	$210.00

SPECIAL COLLEGE AND GRADUATE STUDENTS

	Tuition	General Service*	Total
Minimum Fee	$ 7.00	$ 2.00	$ 9.00
Two Credit Hours	8.00	3.00	11.00
Three Credit Hours	12.00	4.00	16.00
Four Credit Hours	16.00	5.00	21.00
Five Credit Hours	20.00	6.00	26.00
Six Credit Hours	24.00	7.00	31.00
Seven Credit Hours	28.00	8.00	39.00
Eight Credit Hours	32.00	9.00	41.00
Nine Credit Hours	36.00	10.00	46.00

*The General Service Fee does not include Health Service or Student Activity privileges.

The charge for auditing courses is the same as for taking them for credit.

Private Instruction, for credit, is $4.00 per credit hour in addition to the instructor's fee, but no late fee is charged if all of the registration is for private instruction only.

Refunds — College Students

In the event of withdrawal by either a regular or special student, a refund will be made on the basis of a charge of $10.00 for a regular student, and $5.00 for a special student, plus a per day charge of two per cent of the total fees paid for the quarter. The days charged for will be the school days beginning with the first day of the quarter on which classes were held following date on which the student registered to the day on which the student reported his withdrawal to the Office of the Dean of Students, both days inclusive.

No refund will be granted to a student who is requested to withdraw for scholarship or other cause.

The activity or receipt card must be surrendered on receiving a refund.

MISCELLANEOUS GENERAL FEES AND FINES

Graduation fee, Bachelor's degree	$10.00
Graduation fee, Master's degree (Includes printing of thesis abstract) (Photo Identification .35)	20.00
Registration for graduation fee (For those not previously registered in the year in which graduated)	2.50
Late Orientation Fee will be charged all freshmen and sophomore students registering at the University for the first time who do not report to the campus at indicated time on the officially scheduled day for placement tests and orientation work preliminary to registration day	3.00
Late Registration Fee (Charged all regular and part-time students who register after the days officially scheduled for registration. No exception is made, regardless of the reason for being late.)	3.00
Change of Registration fee, for each change slip presented after the first week of each quarter	1.00
Examination, Special Equivalency, per credit hour (The maximum fee in any one subject shall not exceed $25.00.)	4.00
Duplicate Activity Card	1.00
Automobile Registration and Parking Fee —	
For one quarter	2.00
For school year	5.00
Traffic Violation Fines (Traffic Fines are used for scholarships.)	1.00 to 5.00
Thesis Binding (4 copies)	11.00 to 13.00

FEES FOR INSTRUCTION IN MUSIC

(10 Lessons per Quarter)

Group I Teachers (6 or more students at same time)	$10.00
Group II Teachers (3 students at same time)	12.00
Group III Teachers (3 students at same time)	13.50
Group IV Teachers (2 students at same time)	18.00
Group V Teachers	20.00
Group VI Teachers	25.00
Group VII Teachers	30.00

Group VIII Teachers	35.00
Group IX Teachers	40.00
Group X Teachers	45.00
Group XI Teachers	50.00
Group XII Teachers	60.00
Ballou, Richard	25.00
Bos, Jacob	30.00
Brownlee, Robert	25.00
Buggert, Gustav	25.00
Cannon, Clawson	30.00
Curtis, Brandt	30.00
de Jong, Gerrit, Jr.	40.00
Earl, Don	35.00
Edlefsen, Blaine	30.00
Evans, Robert	30.00
Fuerstner, Carl	45.00
Fitzroy, George W.	25.00
Gates, Crawford	30.00
Gulbrandsen, Norman	35.00
Halliday, John R.	40.00
Hanson, Wm. F.	25.00
Keeler, J. J.	30.00
Laycock, Harold	30.00
Laycock, Ralph	30.00
Madsen, Farrell	30.00
Madsen, Florence J.	35.00
Madsen, Franklin	30.00
McAllister, J. W.	30.00
Nelson, Elmer E.	30.00
Nelson Elmer E. (Piano Pedagogy, 6 or more in group) each	10.00
Nordgren, Quentin	30.00
Sardoni, Lawrence	30.00
Summerhays, Margaret	30.00
Wakefield, Homer	30.00
Weight, Newell	35.00
Woodward, Ralph	35.00

FEES FOR VOCAL STUDY IN GROUPS

(10 Lessons per Quarter)

Florence Jepperson Madsen	
Two students in a group, each	$20.00
Three students in a group, each	13.50
Franklin Madsen, Summerhays, McAllister	
Two students in a group, each	18.00
Three students in a group, each	12.00

FEES FOR PRIVATE INSTRUCTION IN SPEECH

(10 Lessons per Quarter)

Group I	$12.00
Group II	25.00

Group III	30.00
Group IV	35.00
Bateman, LaVar	25.00
Clinger, Morris M.	25.00
Gledhill, Preston	25.00
Hansen, Harold I. (12 lessons)	30.00
Jex, Lorin	25.00
Mecham, Merlin J.	25.00
Morley, Alonzo J.	25.00
Pardoe, Kathryn B. (12 lessons)	30.00
Rich, Owen S.	25.00
Woodbury, Lael J.	25.00

FEES FOR SPEECH CLINIC

An out-patient fee of $12.00 per quarter is charged for rehabilitation service in the speech clinic. Such service is offered regularly enrolled students without any charge.

FEES FOR DEPARTMENTAL FACILITIES AND SERVICES

English A (Preperatory English of Sub-College level)	10.00
Foods and Nutrition 40, 140 (Menu Planning and Meal Service)	3.00
Geology 160, 260	10.00
Homemaking Education 139 (Student Teaching)	10.00
Horticulture 12 (Flower Arrangement)	5.00
Instruction 117, 118, 138, 139 (Student Teaching)	10.00
Examination for admission to student teaching (depending on tests selected)	2.50 to 5.00
Additional fee for late application	2.50 to 5.00
Nursing 6, 10 (Fundamentals Laboratory)	1.50
Nursing 136 (Public Health Field Experience)	30.00
Physical Education 30, 40 (Golf)	5.00
Physical Education 32, 42 (Skiing)	10.00
Physical Education 44 (Outdoor Experience Through Organized Hiking)	5.00
Physical Education 45 (Horseback Riding)	20.00
Physical Education 52 (Men) (Skills and Techniques)	6.00
Physical Education 60, 61 (Swimming)	10.00
Physical Education 64 (Life Saving)	10.00
Physical Education 65 (Water Safety Instruction)	10.00
Physical Education 66 (Canoeing)	7.50
Physical Education 138 (Secondary Curriculum and Participation)	10.00
Physical Education 139 (Secondary Student Teaching)	10.00
Physical Education 172 (Driver Education and Training for High School Teachers)	5.00
Recreation 10 (Bowling)	6.00
Recreation 44 (Outdoor Experience Through Organized Hiking)	5.00
Recreation 45 (Horseback Riding)	20.00
Recreation 47 (Outing Activities)	5.00
Recreation 67 (Skills and Techniques for Outdoor Recreation)	12.00

RENTALS

Woodwind, Brass, and String Instrument Rental per instrument per quarter	6.00
Organ rental, one hour each day, per quarter	10.00
Piano rental, one hour each day, per quarter	4.00
Practice Room without a piano, one hour each day, per quarter	2.00
Locker Rent (McKay and Science Buildings):	
1 quarter	2.00
3 quarters	3.50
4 quarters	4.00
($1.00 is refundable on return of key)	
Duplicate key	.50
Locker Rent (For High School Students, Education Bldg.)	
School year	1.50
(50c is returnable on return of key) If students share a locker there is an additional 50c for each additional key issued. The 50c for each such key is refunded on return of key.	

DEPOSITS

Gymnasium Towel Check and Padlock Deposit	3.00
(Maximum refund is $2.50)	
Botany 95 (Microtechniques)	2.00
Botany 140 (Plant Physiology)	2.00
Botany 245 (Plant Nutrition)	2.00
Botany 260 (Experimental Ecology)	2.00
Industrial Arts and Drawing	1.00
Chemistry (each Laboratory Class)	1.00
Civil Engineering 10, 11	1.00
Air Science (All AFROTC students)	10.00
(Fifty cents per quarter will be retained for flight insurance.)	

Fees for Laboratory Schools

SECONDARY SCHOOLS

Senior High School—10th, 11th, and 12th grades:	
Registration fee for the year	$18.00
Activity fee	11.00
Gymnasium service fee	1.00
TOTAL FEE for the year	$30.00
Junior High School—7th, 8th, and 9th grades:	
Registration fee for the year	10.00
Activity fee	9.00
Gymnasium service fee	1.00
TOTAL FEE for the year	20.00
Special students in Secondary Laboratory School, per unit	7.50

Secondary Laboratory School students who register any time during the first semester shall pay the full year's fees. Those who register the second semester in the Junior High School shall pay $11.00, and in the Senior High School $17.00, which amounts include the late fees.

A high school student authorized to register for college courses shall pay in addition to the high school fees $4.00 per credit hour, but the maximum charge for the high school and college courses shall not exceed that charged a college student for the same period.

ELEMENTARY SCHOOL

Kindergarten to the sixth grade, for the full year	$15.00

Elementary Laboratory School students who register any time during the first semester shall pay the full year's fee. Those who register during the second semester shall pay $8.50, which amount includes the late fee.

LATE FEE IN LABORATORY SCHOOLS

A late fee of $2.00 will be charged all junior and senior high school students who register after the first week.

A late fee of $1.00 will be charged all elementary training school students who register after the first week.

Refunds — Laboratory Schools

A refund of $25.00 will be made to any senior high school student who withdraws during the first or second week of the first semester. A refund of $15.00 will be made to any student who withdraws after the second week and on or before the end of the first semester, but no refund will be made thereafter.

A refund of $15.00 will be made to any junior high school student who withdraws during the first or second week of the first semester. A refund of $10.00 will be made to any student who withdraws after the second week and on or before the end of the first semester, but no refund thereafter.

A refund of $5.00 will be made to any elementary training school student who withdraws before the beginning of the Christmas holidays, but no refund thereafter.

No refund will be granted to a student who is requested to withdraw for scholarship or other cause.

The activity or receipt card must be surrendered on receiving a refund.

COLLEGE OF FAMILY LIVING NURSERY SCHOOL

Fee per child, per quarter	$12.00

Student Personnel Services

The Division of Student Personnel Services is responsible for the welfare of students in the following areas of university life:

- Academic Standards
- Advisor to Foreign Students
- Counseling Service
- Health Services
- Information Center
- Orientation
- Scheduling
- Scholarships, Fellowships, Assistantships, and Academic Grants
- Student Employment
- Student Housing
- Student Organizations and Social Life
- Student Publications
- Traffic and Security
- Veterans' Affairs
- Women's Activities

Dean of Students

The Dean of Students is Director of the Special Services of the University. As such, he is expected to coordinate the agencies at work on student problems. He initiates and recommends to the President and the University Council needed policies and procedures in student life. It is his responsibility to administer the program recommended or approved by the President in the various areas of the Student Personnel Services.

Counseling Service

Administrative officers of Brigham Young University are well aware of the many problems that new students are faced with as they begin their college career. The Counseling Service has been established to provide services designed to meet the needs of students in making and maintaining a satisfactory adjustment to college life.

Faculty counselors in these services are qualified to counsel students regarding educational and vocational plans, personal and social adjustment, study skills, and personality problems. As each student enters the university, he is assigned to one of these professional counselors. All entering students are expected to contact their counselor so that they might avail themselves of this technical assistance.

The Counseling Service provides the following services for the University: (1) counseling service—educational, vocational, and clinical, (2) testing service, (3) occupational information service and (4) help with study skills.

The Counseling Service offers assistance to each individual student in helping him to make wise decisions in connection with educational, vocational, and personal problems.

Personnel tests of achievement, ability, interest, and adjustment are given to all new lower division students. The data from these tests are used as a basis for counseling in educational, occupational, and personal problems. Although the basic tests are given to all new lower division students, upper division and graduate students may avail themselves of the tests. The Testing Service provides psychological test data for the use of the counselors and registration advisers, placement tests for various academic groups at the University, and assistance in the preparation, administration, and scoring of subject-matter tests requested by various departments in the University.

A comprehensive, current coverage of essential occupational information is maintained in the Counseling Service Library. Current catalogs of the major universities and technical schools are also on file at the same place.

A Study Skills Laboratory is maintained for use of all students in the improvement of their study habits. Also, reading materials and equipment are available to help the student increase his ability to read.

Counselor for Women

Of special assistance to women students is a Counselor for Women. She is a member of the Committee on Special Services and Chairman of the Committee on Women's Affairs. The Counselor for Women is available throughout each day to assist women students in solving personal problems.

Foreign Students Advisor

Services of the Foreign Student Adviser are available to all students from countries outside of the United States. All alien students are expected to clear with the Foreign Student Adviser. Foreign students coming to the University should report first to Room 197, North Building, the office of the Adviser to Foreign Students.

Veterans' Benefits

A rich educational offering is provided at the University for men and women from the armed forces. The Brigham Young University is approved for Veterans Training Benefits under both G.I. Bills: Public Law 346 and Public Law 550 (Korean Bill). Certificates of Eligibility must be restricted to Brigham Young University. Transfers must be made through the Veterans Office at the last school attended on G.I. New applications can be made with discharge form DD 214 at any Regional Office or upon arrival at the University. For further information direct your inquiry to the Veterans Coordinator, Brigham Young University, Provo, Utah.

Scholarships, Awards, and Financial Aids

The University grants annually to undergraduate students, scholarships covering from one to three quarters tuition each on the basis of outstanding academic ability or demonstrated academic ability and outstanding ability in the areas of speech. drama, music, art, athletics, and other subjects. Tournament and contest winners frequently receive these awards.

The University also awards grants-in-aid to help deserving students of good academic ability who have economic need.

To be eligible for a grant-in-aid, an athlete must meet either of the following requirements:

1. If a freshman, he must have been rated academically as in the upper two-thirds of his school graduating class. For the first year such award shall be made for the entire school year.

2. If not a freshman the student must be in good academic standing and not on probation. Such award shall be made on a quarterly basis.

A considerable number of loans are made to worthy and needy students. These are available to all students on the basis of their qualifications and need for financial assistance.

Scholarships and grants-in-aid are applied toward the payment of tuition or fees.

Any scholarship or grant-in-aid may be withdrawn at any time for academic or other good and sufficient reasons if, in the judgment of said committee, the recipient has clearly demonstrated his failure to comply with both the spirit and the letter of the original terms of the scholarship or grant-in-aid.

Graduate students also are eligible for scholarships, fellowships, and grants. For further information see the Graduate Catalog.

All scholarships, fellowships, assistantships, and academic grants are under the jurisdiction of a central committee which alone has the authority to promise or grant an award. All applications for these recognitions should be made to the Chairman of the Committee on Scholarships and Awards.

Placement Bureau

A full-time placement bureau exists on the campus for the purpose of assisting graduating students and alumni in finding desirable positions in their fields in business, industry, and education. This office works in close cooperation with deans and department heads.

The placement service includes a placement library where interested students may find books, articles, magazines, and brochures that will acquaint them with companies in which they may be interested and also books and pamphlets which will give advice on such matters as how to conduct oneself in an interview, the best ways of finding employment, etc.

All students are urged to register with the Placement Bureau early in the school year in which they will graduate so that that office may begin early to prepare for giving the most effective possible assistance in finding employment for each candidate for graduation. No charge is made for this service.

STUDENT EMPLOYMENT

In the Placement Bureau, assistance is given to students in finding part-time employment. This includes help not only in placing students in positions on the University campus but also in finding part-time employment off campus and in finding work for board and room.

Students are encouraged not to attempt to earn their entire way through school. Such a program leaves little time for academic work (see scholarships).

The Placement Bureau is located in the east end of the Herald R. Clark Student Service Center. Students are urged to register there as soon as possible after they arrive in Provo and are available for work. Inasmuch as it is difficult (usually impossible) to place students who are not in town, the Placement Office does not seek applications in advance. Students are not served on a first-come, first served basis. Factors which weigh most heavily in deciding who shall have jobs are need, hours available, and possession of skills required by employers. Inasmuch as the number of students seeking part-time work is very high, those whose need is great are requested to report regularly at the Placement Bureau after filing their initial applications.

Students from foreign countries are required to obtain a work permit before they may take employment. Such students may receive assistance in obtaining the necessary permit from the foreign student advisor. Students under eighteen who succeed in locating employment are required to obtain a work permit. Instructions concerning this are available in the Placement Bureau.

Inasmuch as all campus jobs must be filled through the Placement Office, students are requested not to call at the various departments in search of work.

Student Health Service

All new students seeking admission to the University will be furnished with a medical examination form by the Admissions Office. This form must be completed by a licensed M.D. and returned to the Admissions Office.

Student health fees are used by the University for follow-up examinations, health guidance, care of minor illnesses, injuries of ambulatory nature, and such surgery and hospitalization as shall be designated from time to time by the University Committee on Student Health.

The new Student Health Service building with many added facilities can handle practically any of the usual health problems that may arise while the student is in school. The student health program does NOT include:

a. Dental fillings or prosthetics
b. Eye refractions or glasses
c. Maternity work
d. Problems of a chronic nature (such as hernias, chronic bone and joint diseases or deformities, chronic gastrointestinal disorders, tuberculosis, tumors, allergies, endocrine or glandular diseases, etc.)

Students who have communicable diseases or other abnormalities may not be permitted to remain in the University or may be limited in their activities.

The student health fees do not provide for surgery and hospitalization which are not authorized in advance by the University physician nor do they provide for medical calls made off the campus. If a student needs off-campus medical care and will call the Student Health Service, however, arrangements will be made for the attendance of a physician who may or may not be a member of the University health staff.

Student Housing and Food Service

All resident students at the University are expected, as a requirement of enrollment, to live in University-approved housing, whether it be on or off campus. The Office of Student Housing has been established to assist students with their housing needs and to administer the housing program. The Office of Student Housing operates on a year-round basis. It is located in the Herald R. Clark Student Service Center. All inquiries or administrative problems relating to housing should be referred to this office.

CAMPUS HOUSING

For Women. Housing for 1,539 women is provided in 24 residences of the Heritage Halls project. These are apartment-type buildings with each apartment consisting of a combination kitchen-dining-study room arrangement, three bedrooms, and a bath. In addition there are large living rooms, a recreation room, and laundry and storage facilities in each building. Six girls occupy an apartment and live cooperatively together, preparing their own meals. The apartments are completely furnished except for bedding, kitchen utensils, and dishes. The facilities are excellent and offer a high standard of living for college students.

Each hall is under the supervision of a head resident couple, generally responsible for the personal welfare and social life of students in the hall. Help in the homemaking experiences of budgeting, buying, meal planning and preparation, and selection, care and construction of clothing is available from specialists who are assigned to the Heritage Halls. In addition, a specialist is available to assist students in planning social activities, developing recreational skills and learning wise use of leisure time. In all on-campus housing, the services of all areas of student personnel services as well as other specialists are utilized to make the university experience as meaningful as possible, The University operates two residence halls for women where board and room are provided. These two halls, Amanda Knight Hall and Knight-Mangum Hall, house 418 students. The halls are completely furnished and provide every modern convenience, including well-planned food service. Students are under supervision of a trained head resident.

A number of small University-owned homes which are operated on a cooperative basis are available for women students. The houses are furnished, except for bedding, kitchenware, and dishes. Residents in these homes do their own housework and prepare their own meals, making it possible for expenses to be kept at a minimum. Each house is organized with a senior resident, appointed from the students in the house, in charge.

Of particular help to women students with problems concerning their housing situation is the Director of Program and Personnel for Women's Housing. She is available for general counsel in personal adjustments to the living situation, help and intra-house organizations. Requests for specific room assignments or roommate preferences should be routed through this office.

Each woman student who desires to live on campus should consider carefully the type of accommodations desired in view of her economic needs, time available for activities within her housing situation, and type of experience desired. Agreements are made for the year and moving from one type of accommodation to another during the year is not permitted.

For men. Board and room for 426 men are provided in Allen Hall and Wymount Residence Halls. Allen Hall, located one block from campus, is a residence hall for men, consisting of living quarters, dining hall, and social room. The Wymount Residence Halls consist of seven buildings acquired from the Federal Government following World War II and moved to the University location. Food service for students living in the Wymount Halls is provided in a central dining room located in a separate building nearby. Supervision of Allen Hall is provided by an adult head resident couple. Wymount Residence Halls are supervised by carefully selected students acting as senior residents.

For Married Couples. Family accommodations for 200 married couples and their children are provided in a housing development known as Wymount Village. These buildings were acquired from the Federal Government and moved to their present site following the war.

Applications. Students who expect to enroll at the University and who wish to live in University-owned housing should apply at the earliest date to the Office of Student Housing. A $10.00 application fee should be enclosed with the completed application form.

Acceptance. The validating of any on-campus housing reservations is contingent upon the students' official acceptance and admission to the University.

OFF-CAMPUS HOUSING

Off-campus housing consists of apartments, rooms with kitchen privileges, board and room, and sleeping rooms. These facilities are inspected by the University to see that they comply with established standards before they are approved for student occupancy. Through the cooperative efforts of both the householders of the community and the University, constructive action has been taken to raise the standards of student housing throughout the community. Before making any commitment for off-campus housing students should make sure that the place they contemplate living in has been approved by the University.

RATES

Rates for off-campus housing accommodations vary with the type of service provided, and as a consequence only a general indication can be given here. Sleeping rooms rent from $13 to $20 a month. Apartment accommodations run from $14 to $25 per month per student. Board and room are available at from $50 to $65 a month.

Rates for on-campus housing accommodations, except Wymount Village, are on an annual basis. Payment of the charges may be made quarterly or by convenient installments. Board and room charges are approximately $150.00 per quarter except for single rooms, which are slightly higher. Costs for apartment-type facilities for single women students are approximately $70 per quarter in Heritage Halls and approximately $45 per quarter in the cooperative homes. Wymount Village apartments for married students are rented on a monthly basis, the maximum rent being $36.50.

Students should expect to be required to make rental payments in advance. In the on-campus housing these rates and dates payable are clearly spelled out to enable students to know specifically what is expected and when.

RENTAL AGREEMENTS

Students planning to live in either on-campus housing or off-campus housing may expect to sign a rental agreement for the accommodations they expect to occupy. Students should be prepared to live by the terms of these agreements once they have signed them. Many misunderstandings and losses can be avoided by students if they will read and familiarize themselves with the terms of the agreement before signing.

A Word of Caution. Housing is such an important part of the total experience of the student at the University that thoughtful consideration should be given in advance to the type of housing desired before entering into the rental agreement. Further, to avoid discomfiture and possible loss of money, students should be sure that the accommodations under consideration have been approved by the University.

FOOD SERVICE

Regular meal service is provided in the Allen and Wymount Residence Halls for men and in the Knight-Mangum and Knight Residence Halls for women. The University also operates a cafeteria and snack bar in the downstairs area of the Joseph Smith Building. The cafeteria serves three meals a day, and the snack bar is open throughout the day and on into the evening. Costs of meals are kept as low as possible, consistent with sound operating management.

Traffic and Security

The Security Office is a protective agency to students, faculty and staff. It maintains liaison with the city police and investigates and prosecutes thefts and other violations of law which may occur on campus. Any information relating to criminal events should be reported promptly to the Security Office.

The Security Office maintains a lost and found service. Any item of value found on the campus should be deposited at once with the Security Office.

A major responsibility of the Security Office is the directing of campus traffic and parking. Students are required to register their motor vehicles with the Traffic Department immediately upon enrollment in school . They must re-register at the beginning of each school year and obtain a parking permit if they intend to park on campus. The fee for parking on campus is $2.00 per quarter or $5.00 per year. It is the students' responsibility to notify the Traffic Department of any change of vehicles or license numbers.

Student Organizations

Student activities are organized in such a way as to offer maximum opportunity for training in leadership and self-government and to provide a well-balanced program of individual and group development. Numerous student organizations have been set up to effectively realize such an objective. All student organizations on the campus conduct their affairs in accordance with a basic philosophy designed "to provide for a broad program of social, cultural, and recreational opportunities in which students are encouraged to participate." Membership is open to students who qualify and remain qualified according to the rules and regulations set up by each organization. All students are urged to become affiliated with some group and thereby derive the benefits that only group experiences can bring. In order to coordinate organizational activity, to eliminate duplication of effort, and to lend continuity from year to year, supervision of student organizations is provided by the Dean of Students through the office of the Coordinator of Student Organizations.

Associated Students. This organization is composed of all students who attend Brigham Young University and is presided over by officers elected by them. It seeks to develop interest on the part of every student in all those activities which contribute to a more democratic "Y" spirit, and to provide opportunities for all students to participate in a well-rounded program of out-of-class activities. Through this organization, student traditions are kept alive and all interclass and intercollegiate activities are encouraged and unified. Social, forensic, dramatic, and musical activities are fostered under its management, and through it the students publish periodicals, which include the daily "Universe," the "Wye" Magazine," the Student Directory, and the University yearbook, the "Banyan." The organization also functions as an auxiliary of University discipline through the activities of the Honor Council and the Inter-Organizational Council Court System.

Associated Men. All men students registered are members of the Associated Men. The organization is designed to promote specific interests of "Y" men and to foster a wholesome masculine atmosphere on the campus. The Executive Council, consisting of three student leaders and a faculty counselor, supplemented by the twelve members of the "Y" men's council, forms the governing group.

Associated Women. This is an organization comprising all women registered in the University. Its purpose is to aid and foster all women's activities. This organization is advised by the Counselor for Women and is a member of the Western Division of the National Organization of Associated Women Students, which includes most of the universities and colleges in the United States.

Class Organizations. Members of the four classes and the Graduate School are organized for the purpose of developing common interests and class spirit as the class proceeds through the University and into the Alumni Association. Meetings of the classes are held periodically with a limited number of social functions planned by class officers under the direction of the Student Senate.

Executive Council. This council consists of the President, First Vice-President, Second Vice-President, Secretary-Historian, and Business Manager of the student body.

Student Senate. This is a legislative body consisting of representatives from the entire student body and representatives from the classes. The Senate considers student body problems and initiates action for the welfare of the student body.

Inter-Organizational Council. An organization composed of representatives from student organizations to help govern organization activities. It derives its authority from the Executive Council.

Honor Council. A group of sixteen students appointed by the Student Senate and functioning as a counseling body with subcommittees to promote the honor system, to which all students are expected to adhere.

Student Publications

Under the supervision of the Student Publications Committee, composed of both student and faculty representatives, four publications are sponsored in order to serve the University and its students and to give opportunity for student expression and development through publications activities.

Newspaper. The Brigham Young **Universe** is published daily except Monday during Autumn, Winter, and Spring quarters and weekly during the Summer quarter. Opportunity is given students for valuable experience in news writing, editing, photography, photo-engraving, and advertising. Editorial and business offices are in Room 144, Clark Student Service Center.

Yearbook. Named for the oriental tree which symbolizes the widening friendships formed on the campus, the **Banyan** is the students' photographic and artistic record of each year's activities. Portraits of all students and faculty members are included without charge to the individuals. Editorial and business offices are in Room 143, Clark Student Service Center.

Magazine. The **Wye** magazine, published quarterly, contains student-written poetry, stories, and non-fiction. Several awards are given for the best art work, photography, and writing published. Offices are in Room 147, Clark Student Service Center.

Directory. An annual directory of Brigham Young University students and faculty is published in the Autumn quarter. Compilation of the directory material and sale of copies is sponsored by White Key, women's honorary service organization.

Professional and Departmental Organizations

The University encourages organizations which have the specific purpose of bringing together persons of similar scholastic and professional interests and of rendering their work more pleasurable and profitable. Each group fosters the activities of the department to which it is allied. Eligibility requirements are those of departmental affiliation and general scholarship as determined by the individual organizations. Fees are reduced to a minimum. Each organization has a faculty sponsor.

Service Organizations

There are on campus several service organizations, the primary function of which is to render service to the University. Some of these are for men and some for women. Eligibility requirements are established by each organization and each has a faculty sponsor.

Religious Organizations

In addition to the 12 wards on campus, there are several organizations which are primarily religious in nature but which are also social and service groups. Membership in some of these organizations is limited to returned missionaries while others are open to any interested student.

Social Units

Within the program of student organization, provision is made for men's and women's social units. Activities in these organizations are provided in accordance with the basic philosophy of student organizations and are established on the basis of common social interests, friendship, congeniality, and cooperativeness. These organizations furnish numerous opportunities for student participation both individually and in groups. The competitive spirit is fostered in such activities as the Homecoming Parade, the Song Fest, and Snow Carnival.

Geographical Organizations

These clubs are organized to further social enjoyment and acquaintance among students from the same localities. They are particularly helpful to students during the early quarters of school before these students have found their way into the other social life of the campus. Such clubs are also helpful in maintaining a close bond of interest between the student and his home.

Non-Student Organizations

B. Y. U. Women. The purpose of this organization is to foster the ideals of the institution and to help furnish recreation and social amusement for the faculty. A woman is eligible for membership in this organization and becomes a member on payment of dues provided that the time she seeks admission she is either: (1) a present faculty member (a faculty member is one who holds at least the rank of instructor); (2) a past faculty member; (3) a matron; (4) a board member; (5) the wife of a faculty member who has died in the service of the school; (6) the wife of a present faculty or board member.

The Society of the Sigma Xi. This is a national organization devoted to the encouragement of research in pure and applied science. The local unit is known as the Brigham Young University Chapter.

Members of the Society of the Sigma Xi on the staff at Brigham Young University organized a Sigma Xi Club in 1935. Since that time it has remained continuously intact, encouraging research and other activities in the various branches of science. A petition for chapter standing was submitted by the local club in 1949. A chapter was granted by the National Society of the Sigma Xi. Formal installation took place October 17, 1950.

Specific local projects include the sponsoring of National Sigma Xi appointed lecturer, the promotion of several lectures by prominent scientists within the unit and from nearby institutions, an annual Sigma Xi lecture by a member of the Chapter, the awarding of an annual medal to an outstanding student for the completion of a research project, and the direction of possible sources of research funds in the interest of pure and applied science.

Religious Opportunities

Brigham Young University students have excellent opportunities for participation in religious activities. Among the organizations which make this possible are the following:

Brigham Young University Stake. This stake of twelve wards, organized specifically for students, provides maximum opportunity for active participation in the program of the Church. Spiritual growth and the development of a strong testimony are goals fostered by the stake organization, whose program is closely integrated at all levels with that of the University.

Church Services. The various wards in Provo welcome students to their regular Sunday services.

Sunday Evening Firesides. Each Sunday evening at 8:30 firesides are held, sponsored by social, religious, and departmental organizations, dormitories, groups representing the various mission fields, etc. These firesides are supervised by the B.Y.U. Campus Ward Bishoprics.

Devotional and Student Assemblies

Devotional and Student Assemblies. Throughout the academic year two assemblies are held each week at 9:55 a.m. on Tuesday and Thursday as a part of the regular program of the University.

It is contemplated that during each year all members of the First Presidency and of the Quorum of the Twelve Apostles will address the student body in the Tuesday devotional assemblies. The Thursday hour, set aside for outstanding student entertainment, is an important part of student life and should likewise be a definite part of the student's schedule. Interspersed with the student productions and devotionals are forum assemblies and lyceums featuring noted people from all walks of life.

Lyceum

For more than seventy-five years, Brigham Young University has been bringing to its students distinguished men and women in arts and letters. During the 1955 Summer Quarter and the 1955-56 season, the following have appeared or are scheduled to appear:

Diran Akmajian (summer)	Tenor
Lorenzo Alvary	Metropolitan Bass Baritone
Amadeus Quartet	String Ensemble
Eugene Andrie (summer)	Clinic Orchestra Conductor

Josephine Asaro (summer)	Soprano
John H. Bloom (summer)	Clinic Choral Conductor
B.Y.U. Symphony Orchestra, Lawrence Sardoni, conductor	
Joerg Demus	Pianist
Carl Fuerstner	Pianist
Rosalinde Fuller	English Actress
Helen George	Soprano
Igor Gorin	Baritone
Alexander F. Haas (summer)	Lecturer
Erick Hawkins (summer)	Choreographer and Dance Virtuoso
Grant Johannesen	Pianist
Mary Jones, with Paganini Quartet (summer)	Violinist
Rhoda Jordan (summer)	Dramatic Reader
Jean Langlais	Blind Organist
Robert McFerrin (summer)	Metropolitan Baritone
Dallin Nielsen (summer)	Clinic Band Conductor
Paganini Quartet (summer) —ten concerts—Henri Temianka, Gustave Rosseels, Charles Foidart, Lucien Laporte	
William Primrose	Violist
Josette and Yvette Roman	Duo-pianists
Salt Lake Tabernacle Choir, J. Spencer Cornwall conductor, and B.Y.U. Symphony Orchestra.	
John Scott	Author-lecturer
Joseph Singer (summer)	Hornist
Mia Slavenska & Company	Dancers
Claramae Turner	Metropolitan Contralto
Utah Symphony Orchestra, Maurice Abravanel, conductor—Two concerts.	
Utah Talent Night.	
Henry Veld (summer)	Choral Conductor
Vienna Choir Boys.	

Alumni Association

Brigham Young University's Alumni Association was organized in 1893 to "promote the general welfare of Brigham Young University."

During the sixty-two years of its existence, it has assisted the University in many ways: the Maeser Memorial Building was built with funds of the Alumni; part of the property on which the upper campus now stands was obtained by the Alumni Association and turned over to the University, and eighty additional acres were purchased by the Church at the suggestion of alumni leaders; a permanent endowment fund was established in 1929 which now exceeds $31,000; the Student Union Building fund, started during World War II, now exceeds $90,000 and has grown primarily from contributions of Alumni; the Fieldhouse fund drive was supported by the Alumni Association; funds in cash have been turned over to the University at various times for unrestricted use; and the alumni have played a vital part in stimulating interest in Brigham Young University through contacts with prospective students, etc.

The Alumni Association has cooperated in organizing The Brigham Young University Fund, a department of the University which has as its sole function the responsibility of a long-range fund raising program for the institution. It is hoped that through this new Fund the University will be given gifts and contributions which will enable it to improve and enlarge its educational offerings.

Alumni of the University are located in all forty-eight states, five U.S. territories and possessions, and in twenty-seven foreign countries. Stake and Mission Presidents of the Church appoint alumni in their respective stakes and missions to serve as BYU Coordinators, and these coordinators organize and conduct alumni activities in their areas. These coordinators are also members of the Alumni Council, governing board of the Alumni Association. The Alumni Council meets twice each year, during the weeks of April and October LDS General Conferences. Routine matters of the Association are handled by an eighteen-member executive committee, headed by a president, two vice-presidents, a treasurer, the president of the Emeritus Club (composed of alumni who were at the University fifty or more years ago), and a full-time Executive Secretary. Members of the Executive Committee are selected each year to serve terms of three years. Members of the Executive Committee are also members of the Alumni Council.

Anyone who has attended the University for one quarter or more is a member of the Alumni Association. There are no annual dues or membership drives, except that the Alumni Association solicits contributions for the Brigham Young University Fund. All contributions to this fund are tax-deductible and entitle the donor to receive publications of the University and the Alumni Association, including the ALUMNUS MAGAZINE, which is issued six times each year.

Homecoming, in the fall, and Alumni Day, during Commencement Week, are the two major events of the year on campus for alumni. Periodic reunions of all graduating classes are held on these two days. Meetings are also held throughout the country by alumni living in local areas.

The Alumni Association maintains permanent records of all former students of the University and a full-time office staff on the campus. If the current address or other information is needed about a former student, correspondence should be addressed to the Alumni Office. Alumni visiting the campus are invited to visit the Alumni Office and to make it their headquarters while in the area.

The Alumni Association is a member of the American Alumni Council, an organization composed of alumni associations of all the major universities and colleges in the United States, Canada, and Mexico.

On June 4, 1929, the Alumni Association initiated a permanent endowment fund for the University. Generous contributions and subscriptions were made at this alumni reunion.

General List of Courses

Accounting
Agricultural Economics
Agronomy
Air Science
Animal Husbandry
Archaeology
Art
Bacteriology
Botany
Business Education and Office Management
Chemistry
Clothing and Textiles
Economics
Economics and Management of the Home
Education: Instruction
Educational Administration
Educational Research and Services
Educational Values and Programs
Engineering Sciences
English
Finance and Banking
Food and Nutrition
Geography
Geology
Health Education and Safety
History
Homemaking Education
Horticulture and Horticultural Specialties
Housing and Design
Human Development and Family Relationships
Industrial Arts and Drawing
Industrial Management
Journalism
Library Science
Marketing
Mathematics
Modern and Classical Languages
Music
Nursing
Physical Education
Physics
Political Science
Psychology
Recreation
Religion
Scouting Education
Sociology
Speech and Dramatic Arts
Zoology and Entomology

Accounting

Associate Professors: R. J. Smith, Lowe.

Assistant Professors: H. V. Andersen, J. T. Bentley (chairman, 162N), Crandall, McIff.

Instructors: Brough, Hawkins, E. A. Johnson, A. P. Johnson, McKnight, White.

Accounting is a means of expressing in clear, understandable financial terms the results of complex operations of business, government, and other institutions. It provides the basic information on which we decide whether things are going well or badly. Accounting offers almost unlimited opportunities for professional recognition, financial reward, and public service. For those who can meet its challenges, professional accounting offers a career with wide horizons and genuine satisfaction. A skilled accountant may have a salaried position with a single or multiple business enterprise, he may teach accounting, he may work for the government, or he may provide accounting services to many clients as a staff member or principal of a public accounting firm. These courses in accounting are designed to provide the major with a background and training that will enable him to become a professional accountant.

Besides serving the major in the department, the program in accounting is designed to supplement and enrich the background of students in other areas so as to enable them to understand the accounting problems present in business situations of all kinds.

Accounting is one of the subjects comprising the composite majors in business designed for prospective teachers. (See page 431.)

Suggested Program for Department of Accounting Majors

The courses listed below include both the University and the departmental requirements.

I. Freshman and Sophomore years

A. General Education

*1. Religion	12 hours
*2. Physical Science	5 hours
*3. Biological Science	8 hours
*4. English 1, 2, 3	9 hours
*5. Social Science (incl. Hist. 70)	10 hours
*6. Physical Education and Health (ROTC students 3)	4 hours
*7. Humanities	14 hours
Total	63 hours

B. General Business and Tool Courses

*1. Accounting 1, 2	10 hours
*2. Economics 1	5 hours

*3. Accounting 35 (Mathematics of Business)	5 hours
*4. Economics 75 (Statistics)	5 hours
*5. Cost Accounting 85	5 hours
Total	30 hours
C. Other Electives (Maximum)	15 hours
Grand Total	108 hours
II. Junior Year	
A. General Education	
*1. Physical Science	4 hours
*2. Religion	6 hours
Total	10 hours
B. General Business and Tool Courses	
*1. Marketing 107	5 hours
*2. Finance and Banking 151	5 hours
*3. Economics 145	5 hours
*4. Industrial Organization & Management 130	5 hours
Total	20 hours
C. Accounting	
*1. Intermediate 150, 151, 152	15 hours
*2. Machine Accounting 125	2 hours
Total	17 hours
D. Other Electives (Maximum)	7 hours
Grand Total	54 hours
III. Senior Year	
A. General Education	
*1. Religion	6 hours
B. General Business Tool Courses	
*1. Finance and Banking 157, 158, 159	12 hours
2. Problems in Business Management 190, 191, 192	9 hours
Total	21 hours
C. Accounting	
1. Theory of Accounts and Statements 175	5 hours
2. Accounting Systems Procedures and Methods 185	5 hours
3. Federal and State Taxes 188	3 hours
4. Auditing Theory and Practice 194	5 hours
Total	18 hours

D. Other Electives (Maximum)	9 hours
Grand Total	54 hours

Note: Those expecting to go into Public Accounting should also consider 187, Municipal and governmental; 196, Accounting Internship; and 288, Advanced Tax Problems.

Those expecting to go into private or Industrial Accounting should consider Industrial Arts and Drawing 4, (Blueprint reading) and 294, Advanced Cost Accounting.

Those expecting to go into controllership accounting should take Problems in Business Management 190, 191, 192.
* Required courses

Lower Division Courses

1. **Elementary Accounting.** (5) A.W.S. Lectures and discussions daily and two two-hour laboratory periods per week. Staff
An introduction to college accounting. Accounting is the basic language of business and an understanding of its principles is essential for those who study our modern economic system. The course is planned to serve the following groups: (1) those who plan to continue the study of accounting and make public or private accounting a career; (2) those who plan to enter other areas of business activity and will therefore need a knowledge of accounting as a tool of business management; (3) those who plan a major interest in economics, political science, or law and seek a more sound understanding through a knowledge of the principles of accounting; (4) those who plan to enter other professions or disciplines and desire accounting to measure their financial or economic progress.

2. **Elementary Accounting.** (5) A.W.S. Lectures daily and two two-hour laboratory periods per week. Staff
Continuation of Accounting 1.

26. **Office Machines.** (2) A.W.S. Prerequisite: Accounting 1. Staff
(See Business Education and Office Mgt. 26.)

35. **Mathematics of Business.** (5) A.W.S. Prerequisite: Mathematics 1 or equivalent. Staff
Application of mathematics to business; includes markup pricing, discounts, simple and compound interest, annuities, amortization, sinking funds, bond valuation and depreciation.

85. **Cost Accounting.** (5) A.W.S. Prerequisites: Accounting 1, 2. Bentley, A. Johnson
An introduction to the principles and practices of cost accounting. Cost accounting may be desired as being that part of the accounting procedure of the organization which deals with the task of determining, reporting, analyzing, and controlling the cost of a particular process, job, service unit, or department of an enterprise.

Upper Division Courses

125. Machine Accounting. (2) A.W.S. Three hours lecture plus laboratory period per week. Prerequisite: Accounting 1.
Brough

Payroll, financial control and statements, sales analysis, billing, inventory control, and accounts payable applications will be demonstrated. Problems in each of these applications will be assigned to groups in the class.

150, 151, 152. Intermediate Accounting. (5-5-5) A.W.S. Prerequisites: Accounting 1, 2. Staff

This course is designed to meet the requirements of two groups: (1) the general business student whose interests are primarily concerned with the interpretation and the use of the products of accounting and for whom this course may be the final formal study in this field, and (2) the student who has chosen accounting as a career and for whom the intermediate course must provide a broad foundation for the specialized studies to follow. Each of these groups must be afforded a full understanding of accounting standards and principles and each of these groups requires full exposure to the practices, techniques and procedures that are employed in the development of financial summaries, schedules and statements.

175. Theory of Accounts and Statements. (5) A. Staff

A brief study of the history and development of accounting and financial statements, their meaning and interpretation. Current accounting problems will be reviewed. Accounting literature including the Journal of Accountancy, the Accounting Review, The Accountant's Digest, and the N.A.C.A. Bulletin will be used extensively as supplementary material.

185. Accounting Systems, Procedures and Methods. (5) W. Staff

Selection and design of accounting systems and procedures; and the preparation of the Accounting Manual, financial reports, and statements. Systems and problems of small businesses will be included.

187. Municipal and Government Accounting. (3) S. Prerequisites: Accounting 1, 2, 150, 151. Lowe or Bentley

Operation and auditing of municipal and government accounts.

188. Federal and State Taxes. (3) A.W. Prerequisites: Accounting 1, 2, and preferably 150 or Industrial Management 120.
Lowe, Andersen, Bentley

A study of Federal and State tax regulations and solutions to tax problems.

190, 191, 192. Problems in Business Management. (3-3-3) A.W.S.
Staff

An inter-departmental course dealing with problems requiring analysis, decision, and action on the part of business executives at the operating level in management. The problems cut across subject matter lines and involve marketing, financial production, personnel, control and other issues all simultaneously pertinent to the development of realistic recommendations. Extensive use of business cases requiring student analysis, group discussions and written reports will form the principle basis for the conduct of the course.

194. Auditing Theory and Practice. (5) A.W. Three hours lecture and two two-hour laboratory periods per week. Prerequisites: Accounting 1, 2, 150, 151, 152. Staff

Principles and methods of public accounting. Professional responsibility and conduct, techniques of verification of accounts and financial statements. Audit working papers.

196. Accounting Internship. (3) Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

280. Advanced Accounting. (5) A. Prerequisite: Accounting 152 Staff

281, 282. Industrial Internal Auditing. (3-3) Prerequisites: Accounting 152 or 194 or equivalent. Staff

282. Advanced Tax Problems. (5) S. Prerequisite: Accounting 188. Lowe, Andersen, or Bentley

293. Reading and Conference. (1-5) A.W.S. Subject to be arranged with instructor. Staff

294. Advanced Cost Accounting. (3) S. Bentley

296, 297, 298. C.P.A. Coaching. (4-4-4) A.W.S. Prerequisites: Accounting 149, 152, 194, and the following, which should be taken before or with C.P.A. Coaching: Accounting 187, 188, 280. Staff

Evening sessions.

300. Thesis for Master's Degree. Staff

Agricultural Economics

Professor: Farnsworth.

Associate Professors: Corbridge (Chairman, 131 N), Nelson.

The Department of Agricultural Economics emphasizes the business and economic aspects of agriculture. A wide range of electives permit a student in this Department to choose course work from many different areas. The student should adapt his study program to his particular interest and needs.

The Department attempts to serve students primarily concerned with (1) farming as a career, (2) training for employment with businesses devoted to the production and distribution of agricultural products, (3) business and government institutions rendering services to agriculture, and (4) training for careers in research and teaching.

Thirty hours are required for a major in Agricultural Economics including:

Agricultural Economics 20, Principles of Agricultural Economics.

Agricultural Economics 23, Farm Accounting.

Agricultural Economics 25 or 26, Farm Management.

Agricultural Economics 110, Marketing Farm Products.

Agricultural Economics 181 or 191, (1) Land Econ., (2) Western Land Problems.

Agricultural Economics 182, 192, (1) Agri. Finance, (2) Farm Appraisal.

Economics 75, Business and Economic Statistics.

It is recommended that students training for professional employment take Economics 145 (Intermediate Economic Theory). Students working toward graduate degrees are also encouraged to take Economics 246 (Advanced Economic Theory). Credit for Economics 75, 145, and 246 will apply toward major credit.

Agricultural Economics majors are encouraged to select a minor in either Agronomy, Animal Husbandry, Horticulture, or Marketing. At least the following courses are to be taken:

Department	Courses Required	To Choose From
Agronomy	2	41 General Soils. 51 Principles of Field Crop Production.
Animal Husbandry	2	1 General Animal Husbandry. 7 Feeds and Feeding. 21 Elements of Dairying. 90 General Poultry.

Horticulture	2	1 Principles of Fruit Production. 2 Vegetable Production. 3 Beautifying the Home Grounds.
Industrial Arts & Drawing	2	Students planning on returning to the farm should select at least 2 classes most useful to their needs.

Lower Division Courses

20. Principles of Agricultural Economics. (5) A.W. Corbridge, Nelson

A survey of the basic principles of agricultural economics from both the individual and social points of view, including a study of farm management, land use and tenure, agricultural labor problems, farm finance, marketing of agricultural commodities, and the status of agriculture in the national economy.

23. Farm Accounting. (3) W. Corbridge

Elementary study of basic records needed for most effective farm management; their compilation, interpretation, and use.

25. Farm Management. (3) A.W. Farnsworth

A general consideration of farm management; with special reference to soils and crop management; types of farming, farm layout, farm capital, equipment, labor, tenancy, farm records, and farm improvement.

Credit will not be granted in this course to students completing Agricultural Economics 26.

26. Farm Management. (3) A.S. Corbridge

The business of farming, with special reference to feeds and livestock. A study of the organization and operation of the farm to secure maximum returns.

Credit will not be granted in this course to students completing Agricultural Economics 25.

Upper Division Courses

110. Marketing Farm Products. (3) A. Nelson

Economic principles, marketing agencies, methods of selling, channels of distribution, market information, current research, and regulations affecting major farm products.

140. Advanced Farm Management. (5) W. Prerequisites: Economics 1, Agricultural Economics 25 or 26, or special permission of the instructor. Corbridge

Practical application of principles of production economics to the organization and operation of the farm business;

combination of productive resources, measures of efficiency, farm accounts, financing, contracts, and other factors affecting success.

152. **Law and the Farmer.** (3) S. Staff
A study of legal problems with which the farmer is most often concerned. Special attention will be given to the following: acquisition and disposition of farm property either by contract, gift or inheritance; laws and regulations pertaining to gift, estate, income, property, and social security taxes; other legal problems encountered in the operation of the farming enterprise.

168. **Agricultural Cooperatives.** (3) W. (Not given this year) Nelson
Organization, financing, management, price policy, membership and public relations. Factors affecting the success of cooperative associations.

169. **Marketing Livestock Products.** (3) W. Nelson
A study of existing marketing channels and methods of handling livestock products including poultry, dairy and meat animals and their products.

181. **Land Economics.** (3) S. (Not given this year) Nelson
Principles relating to the utilization, tenure, and conservation of land resources.

182. **Agricultural Finance.** (3) A. Corbridge
A study of agricultural credit, with special reference to existing financial organizations and their relation to agriculture.

191. **Western Land Problems.** (3) S. (Not given this year.) Nelson
Protection of the basic resources, irrigation developments, range management, and other land problems of the western states particularly those of the Rocky Mountain area.

192. **Farm Appraisal.** (3) A. Corbridge
Field work and training in commercial and federal appraising methods. Three fold purpose of course: training in the technique of farm appraisal for: (1) prospective purchasers, (2) commercial credit institutions loaning on basis of farm valuations, and (3) government agencies levying taxes on farm property.

194. **Agricultural Prices.** (3) W. (Not given this year) Nelson
Pricing principles, relation of prices of agricultural and non-agricultural products, prices and commodity surpluses, cash and future prices, price forecasting and outlook, analysis of price variations for farm products.

195. **Agricultural Policy.** (3) S. Corbridge
The theoretical and institutional setting of the agricultural industry, the objectives of farm policy, and the means of achieving these objectives. Includes a study of existing and proposed farm legislation.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

280, 281. Seminar. (1-1) A.W. Staff

296. Individual Readings. (Arr.) Staff

297. Individual Research. (Arr.) Staff

300. Thesis for Master's Degree. Staff

Agronomy

Professors: Farnsworth, Martin (emeritus).

Associate Professors: Hallam (chairman, 160B), Allred, Ashton.

Instructor: Reimschiissel.

The Department of Agronomy includes work in crops and soils. Students majoring in the field may be trained in the following areas: (1) practical scientific farming, (2) government civil service, (3) commercial agricultural positions, (4) graduate study toward the M.S. or Ph.D. degree, (5) agricultural teaching when program is planned in that direction.

Students registered or majoring in any of the agricultural departments (except those planning to do graduate work toward Ph.D.) are required to take the following courses:

Area	No. of Courses	Suggested Courses
Agricultural Economics	2	23, 25 or 26, 110
Animal Husbandry	2	1, 7, 21, 90
Horticulture	2	1, 2, 3

In addition, students returning to the farm should take at least two courses in Industrial Arts.

The following courses are recommended for all Agronomy majors:

Mathematics 1 or 11 and 35 or 12
Chemistry 7, 8, and 9, or 14, 15, and 16
Botany 1 or Zoology 11, and Botany 140.
Bacteriology 21
Geology 1

Students majoring in Agronomy may direct their training toward either crops or soils. Those desiring crops training are required to take the following:

Agronomy 41, 51, 60, 62, 105, and 155 or 173.

Those desiring most of their training in soils are required to take the following:

Agronomy 41, 51, 102, 105, and 107.

A minimum of 30 hours is required for a major in either case. Hours above those required may be taken from any of the courses listed under the Agronomy Department offering.

Suggested courses are given for the various areas of training:

Freshman Year	**A**	**W**	**S**
English 1, 2, 3	3	3	3
Phys. Ed.	1	1	1
Math. 1, 11 or 12	5	5	
Chemistry 14, 15, 16 or 7, 8, 9	5	5	5
Religion	2	2	2
Botany 1			5
Electives	2	2	2
Total hours	18	18	18

Sophomore Year	**A**	**W**	**S**
Agron. 41, 51	4	4	
Bact. 21			4
Chemistry 31 or 21 & 22	5		
Religion	2	2	2
Social Science	5		5
English		3	
Geology		5	
Electives	2	4	7
Total hours	18	18	18

Junior Year	**A**	**W**	**S**
Agron. 151, 155	3		3
Agron. 102, 107		4	3
Religion (Upper Division)	2	2	2
Electives	13	12	10
Total hours	18	18	18

Senior Year	**A**	**W**	**S**
Agron. 105, 106, 114	5	3	5
Agron. 196	1	1	1
Botany 140		5	
Religion (Upper Division)	2	2	2
Electives	10	7	10
Total hours	18	18	18

1. In planning a program for returning to the farm the student should take as many courses as possible in the following areas depending upon his needs, desires, and the requirements of his minor field:

Agricultural Economics as listed in catalog.
Agronomy as listed in catalog.
Animal Husbandry 107, 154, 171, 190.
Botany 166, 170.
Horticulture as listed in catalog.
Industrial Arts 11, 12, 16, 17, 18, 30, 116, 122, 146.

2. Should a student desire to enter the field of government civil service as an agronomist, soil conservationist, soil scientist, reclamationist; his general courses will be as listed above with "electives" from the following:

Agricultural Economics as listed in catalog.
Agronomy as listed in catalog.
Animal Husbandry 107, 154, 171, 190.
Horticulture as listed in catalog.

Botany 3, 140, 150, 170.
Chemistry 21, 22 or 31.
Drawing 4.
Geology 11, 12.
Mathematics 12, 13.

3. For training for commercial positions, a combination of the above courses is suggested.

4. The suggested course of study for agronomy majors who plan to do graduate work for Ph.D. degree in soils is as follows:

Agronomy 41, 51, 101, 102, 103, 105, 107, 114, 196	30-32 hrs.
Bacteriology 21	4 hrs.
Botany 1 or Zoology 11	5 hrs.
Botany 140, 150, 170	15 hrs.
Chemistry 14, 15, 16, 31, 151, 152, 153, or 161, 162, 163	37-39 hrs.
Geology 12	5 hrs.
German 1, 2, 3	15 hrs.
Mathematics 11, 12, 13, 91, 92, 93	27 hrs.
Physics 41, 42, 43	15 hrs.

Lower Division Courses

41. General Soils. (4) A.S. Martin
An introductory course dealing with the physical, chemical, and microbiological properties of soils. Two lectures. Two two-hour laboratory periods each week.

51. Principles of Field Crop Production (4) A.W. Allred
Crop production principles, soil-plant relationships, crop improvement, tillage, and crop rotations. May be taken concurrently with Agronomy 60, 61, or 62.

60. Cereal Crops. (2) A. Prerequisite: Agronomy 51. Allred
Classification, history, and cultural methods involved in the production of cereal crops.

61. Root and Special Crops. (2) W. (Not given this year.) Prerequisite: Agronomy 51. Allred
Cultural methods, market types, and commercial possibilities of sugar beets, potatoes, etc.

62. Forage Crops. (4) S. Prerequisite: Agronomy 51. Allred
Alfalfa, clovers, grasses, and other forage; meadow and pasture management; silage and soiling crops.

Upper Division Courses

101. Soil Physics. (3) A. Prerequisites: Agronomy 41, Chemistry 7 or 14, Mathematics 1 or 11. Recommended: Physics 41, 42, 43; Chemistry 15, 16, 21, 22, or 31. Farnsworth
A detailed study of the physical composition of soils—sand silt, clay, and organic matter, and their effects upon the air, water, and temperature relationships in the soil. Two lectures, one two-hour laboratory period each week.

102. Irrigation and Drainage. (4) W. Prerequisites: Agronomy 41, Mathematics 11. Farnsworth
Proper use of irrigation water; irrigation water supply, water measurements; drainage in relation to the irrigation practices; drainage and alkali; drainage systems.

103. Soil Chemistry. (3) W. Prerequisites: Chemistry 31 or consent of instructor. Hallam
A physico-chemical study of soil colloids.

105. Soil Fertility. (5) A. Prerequisites: Agronomy 41, Chemistry 7 or 14. Hallam

A study of the underlying principles of soil fertility, soil alkali, soil chemical analysis or soil testing, commercial fertilizers, farm manures, green manures, crop rotations.

106. Soil and Plant Analysis. (3) W. Prerequisites: Agronomy 105, Chemistry 21, 22 or 31. Hallam

Laboratory chemical analysis of soils and plant materials. Use of radioactive materials in soil fertility research. Use, care and measurement of radioactive materials.

107. Soil Origin, Classification, Conservation, and Survey. (3) S. Prerequisites: Agronomy 41, Geology 1. Farnsworth

The influence of geologic forces and climatic environment on soil development; classification of soils based upon soil profile characteristics. Methods of soil conservation and soil survey are emphasized. Two lectures, one two-hour laboratory period each week.

114. Soil Microbiology. (3) S. Prerequisite: Bacteriology 21. Hallam

A lecture course designed to acquaint the student with bacteria in relation to soil fertility. The activity and types of organisms in the Rhizosphere. The biological processes in the soil.

115. Soil Microbiology Laboratory. (2) S. Prerequisites: Agronomy 114, Chemistry 31, or equivalent, or consent of instructor. Hallam

A laboratory course designed to accompany soil microbiology lectures.

150. Weed and Seed Identification. (2) A. Reimschiissel

The important weeds occurring in Utah. Weed seeds likely to occur in commercial seed.

151. Weeds and Weed Control. (3) S. Prerequisites: Agronomy 41 and 51. Allred

153. Advanced Field Crops and Seed Production. (3) W. Prerequisites: Agronomy 41, 51, 60, 62. Allred

Problems involved in crop production, crop judging, and seed certification.

155. Pasture Management. (3) 3. **Prerequisites:** 41, 51, 62, 105. Allred

159. Plant Breeding. (3) W. Prerequisites: Botany 1 and Zoology 18 or 29. Ashton

Methods of hybridizing and selection in relation to plant improvements.

173. Range Management. (4) S. Prerequisites: Botany 1, 150. Staff

Problems associated with the management of range lands, grazing, revegetation, and maintenance of range lands.

196. Seminar. (1) A.W.S. Staff
Current agronomic literature, agricultuural problems. Required of all senior students majoring in agronomy.

197. Research and Special Problems. (1-3) A.W.S. Seniors specializing in Agronomy elect research work from one to three hours. Time and credit to be arranged. Staff

198. Agricultural Literature. A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. Advanced Soil Physics. (4) W. Farnsworth

205. Chemistry of Soil-Plant Relationships. (3) A. Hallam

214. Advanced Soil Microbiology. (3) S. Prerequisites: Agronomy 105; Bact. 21. Hallam

259. Advanced Plant Breeding. (3) A. (Not given this year.) Allred

273. Advanced Range Management. (1-4) A.W.S. Staff

294. Seminar. (1) A.W.S. Staff

295. Special Problems. (Arr.) A.W.S. Staff

297. Research. (Arr.) A.W.S. Staff

299. Agricultuural Literature. (Arr.) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Air Science

Professor: Col. Allen (chairman 145 Health Center).

Assistant Professors: Lt. Col. Cloward, Major Crawford, Major Hall, Captain Nelson, 1st Lt. Grindstaff.

Instructors: M/Sgt. Carter, M/Sgt. Ray, T/Sgt. Curtis, T/Sgt. Nielson, T/Sgt. Schow, S/Sgt. Lasater.

General. Subjects in Sub-Course I (AS 10, 11 & 12) (Freshman), and Sub-Course II (AS 20, 21 & 22) (Sophomore), are taught two hours per week. These are called the Basic or Lower Division Courses. Subjects in Sub-Course III (AS 101, 102 & 103) (Junior), and in Sub-Course IV (AS 112, 113 & 114) (Senior), are taught four hours per week and are called the Advanced or Upper Division courses. Upon successful completion of all Air Science courses, plus the university requirements for a Baccalaureate degree, the student is qualified for a Second Lieutenant's commission in the United States Air Force Reserve.

Approximately eighty percent of the Second Lieutenants in the United States Air Force are graduates of the Air Force ROTC Program. The AFROTC Program is designed to fit into the regular academic schedule at BYU. This enables the student to complete his college Baccalaureate degree, and then enter the Air Force as a Second Lieutenant.

There are no marriage restrictions for the Air Force ROTC men, either while at Brigham Young University or as junior officers on active duty while undergoing flying or technical training. A married Second Lieutenant on flying status receives $455.68 per month.

The AFROTC graduate is a trained junior executive. He is not, however, a specialist in any particular line. Specialty training is accomplished after he enters active duty at an Air Force Base. Upon completing the program, the student will have had direct experience in handling people during his progress through the cadet ranks. He will have applied his military knowledge to practical situations by staff studies, oral presentations, student instruction, and group discussions. He will have practiced sound leadership techniques which will have increased his self confidence. When called to active duty he will be fully prepared to accept the responsibilities of a Second Lieutenant.

Most Air Force ROTC graduates must be qualified for flight training. A few non-flyers can be commissioned if they graduate with an engineering degree. Flying training is undertaken in commissioned status as a Second Lieutenant. Some are trained as radar observers and others as pilots. The flying officer must have a working knowledge of weather, navigation, electronics, and communications data and equipment. Any cadet who does not remain qualified under the terms of the advance course contract which he signs, automatically becomes ineligible for a commission in the reserve program.

Enrollment. There is only one time a student may enroll in the AFROTC Program. That is as a first quarter freshman. He may leave the program at any time he desires. Transfer students from institutions where a Reserve Officers Training Corps Program is offered are not eligible, unless they were enrolled in ROTC at their first institution. Transfer students from institutions where ROTC is not offered are eligible only if they have four years of academic work to be completed. Obtaining a degree is a prerequisite for receiving a commission in the Air Force Reserve. The AFROTC program must be completed before or concurrent with graduation. If it is completed before graduation, the student must graduate within one year after completing the program. He will continue to be deferred from the draft in such a case. A student may not enter the program as a graduate student.

The Draft. All able bodied men in the nation are presently required to fulfill an eight year military obligation if called into the service. This requirement was established by the 84th Congress as Public Law 305. The obligation is accomplished through a combination of active and reserve duty totaling a minimum number of eight years.

Students who are properly enrolled in the AFROTC program may be deferred from the draft by the Air Force after they have satisfactorily completed one quarter of Air Science provided they are within the yearly quota allotted to the University.

In addition, the Air Force now has a most liberal policy for those who desire to undertake graduate training. After completing his under-graduate work and receiving his degree and commission as a Second Lieutenant in the Air Force Reserve, the student may apply for a delay in his entry into active duty for as much as two years to attend graduate school.

AFROTC students (or cadets) are civilians. Discipline and like matters are administered by the Dean of Students. Disciplinary training in the Cadet Corps is formulated and administered by the cadets themselves. Discharge from the AFROTC does not mean that the student must leave college; it will, however, result in cancellation of his draft deferment.

Veterans. Veterans enrolling at this institution with prior college credit, who seek a commission through the AFROTC program, may have that part of the basic program waived which corresponds to the academic credit on their record. They must, however, enroll the first quarter they register at this institution, or make arrangements with the Department of Air Science for an appropriate delay in registration to place them in phase. Veterans without prior college credit who seek a commission through the program must register for the basic course and follow through the entire program. A veteran may not attend school for one year or even one quarter and then decide to enter the program. The decision must be made upon initial registration. A veteran with three years' college credit is ineligible for the AFROTC program.

The AFROTC Program. The AFROTC program is divided into three parts, basic and advanced. The basic program consists of freshman and sophomore years. As a freshman and a sophomore the cadet is issued, at no charge, a complete Air Force uniform which he will be required to wear one day a week at leadership laboratory. During these two years the cadet is promoted through the airman ranks as his leadership ability is demonstrated.

During his sophomore year, the cadet will meet a selection board under the supervision of the Professor of Air Science for upper division enrollment. If selected for the advance course, the cadet is equipped with a tailored officer's uniform consisting of trenchcoat, blouse, trousers, service cap, gloves, shoes, two shirts, belt, and necktie. When he graduates, this uniform becomes his personal property to wear while on duty as an officer in the United States Air Force. If he does not complete the program, this uniform is turned in. During the first year of the advanced program, the cadet holds non-commissioned officer rank. Between his junior and senior year, he attends a four-week summer training unit at an Air Force Base. During his senior year, the cadet is assigned a cadet officer position in the cadet corps and is given responsibilities in the leadership training of other cadets.

Extracurricular Activities. AFROTC students normally extend their academic and laboratory associations into extra curricular activities. These include the Arnold Air Society, the Saber Squadron (including a Drill Team), the AFROTC Chorus, the Rifle Team, and the annual Military Ball held during the spring quarter. Cadet associations and friendships formed during the program continue, after college, into service tours.

A comprehensive program of orientation flights in United States Air Force aircraft is carried on during each school year. Each cadet has the opportunity of visiting Air Force bases and aircraft assembly plants. During these flights, the student becomes familiar with the characteristics of aircraft in flight and observes Air Force procedures first hand. These flights, as well as those in jet aircraft during summer training, are made by thoroughly experienced Air Force pilots.

Period of non-attendance. Students enrolling in AFROTC who enter college on a five-year program are given a year of non-attendance after completing the two year basic course. During this year of non-attendance they remain deferred from the draft. Students called on Latter-day Saints' missions will be released from the AFROTC program, and, upon their return, will be accepted back into the program only if they meet all the conditions in force at the time of return.

Allowances. All academic texts for the four-year program are furnished at no charge to the student. In addition to the officers' uniform valued at $100.00, the advanced cadet receives subsistance payment from the government at the rate of approximately $80.00 for every three months of the actual school year. This amounts to approximately $525.00 in cash payments during the advanced course. ($ .90 per day) Orientation flights in conventional and jet aircraft to Air Force bases and aircraft assembly plants are made at no charge to the cadet. Students attending summer camp are paid at the rate of $75.00 per month. Expenses for medical care, food, clothing, and transportation to and from summer camp, are also provided the student at no extra charge.

Course fee deposit. A fourteen-dollar ($14.00) deposit is required of each student at the time he enters the program. This deposit is required to protect the United States Air Force and the University from loss of text books and articles of the uniform. A $4.50 course fee per year is withheld from this deposit. This is used to bear the costs of flight insurance and the annual Military Ball. The balance is returned to the student at the end of each school year providing no losses in uniform and books have taken place.

Lower Division Courses

10, 11, 12. National Defense and the Air Force. (2-2-2) A.W.S. Staff

Basic course designed to introduce the study of aviation, fundamentals of global geography, factors of world power, and the nation's defense organization.

20, 21, 22. Elements of Aerial Warfare. (2-2-2) A.W.S. Staff

The purpose, process, and primary elements of aerial warfare: targets, weapons, aircraft, the air-ocean, bases, and people; purpose and provisions of the USAF Officer Career Program; survey of occupational fields open to officers.

Upper Division Courses

(Students are selected for upper division work by a Board of Officers under the direction of the Professor of Air Science.)

101, 102, 103. Applied Air Science and Techniques. (3-3-3) A.W.S. Staff

Command and staff concepts; problem-solving techniques; communications processes; principles and techniques of learning and teaching; Air Force correspondence and publications; military law, courts, and boards; applied air science, including aerial navigation and weather; and functions of the Air Force base.

112, 113, 114. Applied Air Science and Techniques. (3-3-3) A. W.S. Staff

Military career guidance, principles of leadership and management, briefing for commissioned service, military aviation and the evolution of warfare, and military aspects of world political geography.

Animal Husbandry

Professor: Morris (chairman, 150B).
Associate Professor: Richards.
Assistant Professors: Shumway, Nicholes.

The Department of Animal Husbandry offers courses for students majoring in this field, training for the following activities: (1) Practical livestock farming and operation. (2) Livestock and herd managers. (3) Commercial agricultural positions. (4) Pre-veterinary preparation. (5) Advanced study toward the M.S. or Ph.D. degrees. (6) Agricultural teaching when program is planned in that direction.

A student majoring in Animal Husbandry may choose his field of study from either Animal Husbandry proper (cattle, sheep, and swine), Dairy Husbandry, or Poultry Husbandry or a combination of these. A minimum of 36 hours is required for a major.

Animal Husbandry majors are encouraged to take more than the required number of hours needed for graduation in both the physical and biological sciences.

All Animal Husbandry students are required to take any two of the following related courses in agriculture:

Agricultural Economics (Ag. Econ. 23, 25 or 26, 110).
Agronomy (Agron. 41, 51).
Horticulture (Hort. 1, 2, 3, 10).
Industrial Arts. Any two courses.

Any Animal Husbandry major who desires most of his training in meat animals must take the following courses in Animal Husbandry: 1, 7, 15, 32, 111, 112, 174, 175, and 176.

If a student desires most of his training in dairy production, he should select the following Animal Husbandry courses: 1, 7, 15, 21, 32, 110, 111, 112, 113, 116, 171, 174, 175, 176. In addition one or more courses in Bacteriology should be taken.

If the student desires training in Poultry Husbandry, he must take the following courses in Animal Husbandry: 7, 15, 90, 91, 174, 175, 176, 188, 189, 190, and 194. He must also take Zoology 13.

Students planning to return to the farm or do service work should fill elective courses from the following areas, depending on specific likes and desires:

Agricultural Economics 20, 152, 168, 169, 182.
Agronomy 20, 22, 151, 155, 173.
Bacteriology 21.
Botany 1, 112, 135, 140, 150, 158.
Horticulture 1, 2, 3, 10.
Industrial Arts, 11, 12, 16, 17, 18, 30, 116, 122, 146.
Journalism 61, 111.
Mathematics 1 and 35 or 11 and 12.
Speech 1 or 2, 24.
Zoology 11, 13, 18.

Students planning on doing graduate work should elect from the following courses:

Animal Husbandry as listed, with minimum of 36 hours.
Bacteriology 21, 101, 181.
Botany 1, 112.
Chemistry 7, 8, 9 or 14, 15, 16; 21, 22, 110, 151, 152, 153, 181, 182, 183.
German 1, 2, 3.
Mathematics 11, 12, 13, 152.
Zoology 11, 13, 18, 45, 129, 165, 170, 173, 174.

The schedule shown below is a suggested outline for Animal Husbandry majors:

Freshman Year

	A	W	S
An. Hus. 1, 7, 15	5	5	5
Zoology 11	5	..	..
English 1, 2, 3	3	3	3
Religion	2	2	2
Phys. Ed.	1	1	1
Hort 1 or 3	..	3	..
Health 1	..	..	1
Agron. 41 or 51	..	..	4
Electives	2	4	2
	18	18	18

Sophomore Year

	A	W	S
An. Hus. 21 or 90	4	..	..
An. Hus. 32	..	..	4
Agron. 41 or 51	..	4	..
Ag. Econ. 23, 26, 110	3	3	..
Chem. 2, 3, & 4 or 14, 15, 16	5	5	5
Hort. 2 or	..	3	..
Hort 10	..	..	3
Religion	2	2	2
Electives	4	1-2	5-6
	18	18	19

General Animal Husbandry

Lower Division Courses

1. **General Animal Husbandry.** (5) A.W.S. Nicholes
A course designed to familiarize the student with all phases of livestock production.

5. **Livestock Judging and Selection.** (3) (Not given this year.) Staff
A study of animal types and their relation to the functions of animals. Field trips to the University Farm and nearby farms will be made. Emphasis will be on practice in selection and judging of animals.

7. **Feeds and Feeding.** (5) A.W.S. Shumway
Principles of nutrition and their application to all types of farm animals.

15. **Fundamentals of Animal Breeding.** (5) A.W. Richards
A study of the principles involved in breeding farm animals, including physiology of reproduction, heredity and variation, selection and systems of breeding.

32. **Fitting and Showing Livestock.** (4) S. Three three-hour laboratory periods per week. Richards
Each student will be assigned an animal to fit and show at one of the spring shows and the Campus Livestock show.

Upper Division Courses

105. **Advanced Judging.** (3) A. Prerequisite: Animal Husbandry 1. Shumway
Advanced work in livestock judging. Collegiate team will be picked from this class.

107. **Advanced Feeding.** (4) W. Three lectures and one three-hour laboratory period per week. Prerequisite: Animal Husbandry 7. Shumway

111. **Animal Physiology and Anatomy.** (5) A. Prerequisite: Zoology 11. Nicholes
Physiology and anatomy of farm animals.

112. **Animal Diseases.** (5) W. Prerequisite: Animal Husbandry 111. Nicholes
A study of the causes, prevention, and practical treatment of common diseases of farm animals.

113. **Animal Disease Laboratory.** (5) S. Three lectures and one special laboratory period arranged. Prerequisites: Animal Husbandry 111, 112. Nicholes
Diagnosis, treatments, and laboratory and field experience in animal hygiene.

115. **Advanced Animal Breeding.** (3) S. Prerequisites: Animal Husbandry 15. Richards
Advanced work in livestock breeding.

150. **Horse Husbandry.** (3) S. Nicholes
A brief study of breeds of horses, with emphasis on feeding, training, and management.

154. **Beef Production.** (4) A. Three lectures and one three-hour laboratory period per week. Two Saturday field trips, including a trip to Ogden Livestock Show. Prerequisites: Animal Husbandry 7, 15. Richards
The problems of breeding, feeding, and management of range cattle, feeder cattle, and purebreds will be studied.

155. **Sheep Production.** (3) S. Prerequisites: Animal Husbandry 7, 15. Shumway
Feeding, care, and management of farm and range sheep.

156. **Swine Production.** (3) S. Prerequisites: Animal Husbandry 7, 15. Shumway
Breeding, feeding, and management of swine on western farms.

160. **Meats and Meat Preparation.** (3) W. Nicholes

174. **Current Problems in Animal Husbandry.** (2) A. Staff
A brief review of current experimental work with livestock.

175. **Animal Husbandry Seminar.** (1) W. Staff

176. **Animal Husbandry Survey.** (1) S. Staff
Special lectures by livestock specialists with emphasis on employment opportunities.

182. **Animal Husbandry Research and Problems.** (1-5) A.W.S. Staff
Students will be expected to outline and complete a research problem in some phase of Animal Husbandry.

184. **Animal Husbandry Practices.** (Arr.) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. **Special Problems in Animal Breeding.** (1-5) A.W.S. Richards

207. **Animal Nutrition.** (3) S. Staff

211. **Special Problems in Animal Nutrition.** (1-5) A.W.S. Staff

230. **Animal Disease Research.** (1-5) Arr. Nicholes

260. **Experimental Methods in Livestock Work.** (3) W. Richards

Dairy Husbandry

Lower Division Courses

6. **Dairy Judging and Selection.** (3) S. (Not given this year.) Two three-hour laboratory periods per week. Staff

21. **Elements of Dairying.** (4) W. Three lectures and one three-hour laboratory period per week. Richards
General principles of breeding, feeding, and management of dairy cattle.

22. **Cow Testing.** (2) A.S. (Not given this year.) Richards
Instruction and practice in record keeping and butterfat testing.

Upper Division Courses

110. **Milk and Milk Processing.** (5) W. Shumway
Modern methods of producing, grading, and processing dairy products.

116. Pedigree and Herd Book Study. (2) W. Prerequisite: Animal Husbandry 15. Richards

Interpretation of pedigrees and research in herd books of the major breeds of livestock.

165. Artificial Insemination. (3) S. Prerequisite: Animal Husbandry 15. Richards

Methods and techniques of artificial breeding will be studied, accompanied by laboratory work.

171. Dairy Production. (4) W. Three lectures and one three-hour laboratory period per week. Richards

Advanced work in feeding, breeding, and milk secretion.

184. Animal Husbandry Practices. (Arr.) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

220. Problems in Dairy Research. (1-5) A.W.S. Staff

271. Secretion of Milk. (3) S. Staff

Poultry Husbandry

Lower Division Courses

90. General Poultry. (4) A.W.S. Three lectures and one two-hour laboratory per week. Morris

A general course in Poultry Husbandry designed to acquaint the student with the general problems of poultry breeding, feeding, housing, and management, and the possibilities and limitations of the industry.

91. Poultry Practices. (1-2) A.W.S. Prerequisite: Animal Husbandry 90. Morris

Practical experience in growing and caring for a brood of chicks from day old to twelve weeks. This experience will be gained at the University Poultry Laboratory. The amount of credit will vary with the size of the units and the number of birds grown.

Upper Division Courses

189. Advanced Poultry Practices. (1-3) A.W.S. Prerequisite: Animal Husbandry 90. Morris

Actual practice and experience in caring for and managing laying hens and broilers and in the marketing of eggs and poultry; candling, grading, and caring for market eggs; killing and dressing poultry, fowl, and turkeys.

190. **Poultry Management.** (3) W. Two lectures and one two-hour laboratory per week. Prerequisite: Animal Husbandry 90. Morris

The management and business phases of poultry production. Problems involved in managing laying flocks, broilers, and replacement pullets. Costs of starting the business and operational costs. Problems of setting up, arranging, and operating a poultry farm. Visit to nearby farms.

191. **Turkey Management.** (3) S. Two lectures and one two-hour laboratory period per week. Morris

The principles, practices, and problems of turkey production, including brooding, feeding, growing, and marketing.

194. **Poultry Feeding.** (3) A. Two hours lecture and one two-hour laboratory period per week. Prerequisite: Animal Husbandry 90. Morris

Applying the principles of nutrition to all types of poultry. Feed formulation and feed ingredients. Nutritional requirements of chicks, broilers, poults, laying hens and turkeys. Visit to nearby feed mills.

196. **Incubation and Brooding.** (3) S. (Not given this year) Two lectures and one two-hour laboratory period per week. Prerequisite: Animal Husbandry 90. Morris

The principles and problems involved in incubating chicks and poults. Feeding, managing, and caring for chicks, poults, and broilers.

198. **Poultry Seminar.** (1) Arr. Morris

A survey and reporting of current research and problems in poultry husbandry.

199. **Poultry Research and Problems.** (1-5) Arr. Morris

For advanced students who might want to do graduate and research work. The outlining and conducting of a research problem.

Archaeology

Associate Professor: Jakeman (chairman, 203ESC).
Assistant Professor: R. T. Christensen.

A major in Archaeology requires the completion of 40 hours of work in this department, including courses 1, 21, 50, 76, 110, 127, 130, 151, 161, 171, and 184. A major in this field will prepare the student for postgraduate specialization in either (1) Old World archaeology and ancient history or (2) American archaeology and anthropology, leading to teaching and/or research and writing in these areas. For fullest preparation, a minor in History is recommended (including History 10, and either 100, 104, 105, 107, and 108, for specialization in Old World archaeology and ancient history, or 101, 150, 151, 153, and 161, for specialization in American archaeology and anthropology); also, if possible, a minor in French or German (for specialization in Old World archaeology and ancient history) or Spanish (for specialization in American archaeology and anthropology); and the following courses in other departments: Geology 1, Geography 11 and 103, Sociology 11 and 108, Linguistics 60, Speech 1, English 22, Art 1 and 59, Physics 26, Civil Engineering 120, and Drawing 43, 44, 45, and 150.

A minor in Archaeology requires the completion of 20 hours in this field including courses 1, 21, 110, and 130.

Credit in Religion as well as Humanities may be obtained for courses 110 and 130 (see Archaeology in the Division of Religion). Graduate credit may be obtained for the courses below, marked with asterisk (*).

Several courses in Ethnology are also given in this department, prerequisite to following courses in Archaeology. They are distinguished from those in Archaeology by the double dagger. (‡)

In this department, courses not offered this year will be given the following year.

Lower Division Courses

1. **Introduction to Archaeology.** (4) A.W.S. (GER-HA) Staff
The aims, fields, and major discoveries of archaeology, the science which reconstructs the early history of man from the evidence of his actual material remains. The principal ancient cultures of man discovered by archaeology will be surveyed, as illustrated from the archaeological collections in the Department. Special attention will be given the important bearings of archaeology on the historic claims of ancient writings such as the Hebrew scriptures.

21. **Peoples and Culture.‡** (4) W.S. Recommended: Archaeology 1 or History 10. Christensen, Dyer
An introduction to ethnology or the study of peoples, and cultural anthropology or the study of human creatures basic

to further work in archaeology. The principal peoples of the world will be classified, as to habitat, general racial type, language, and culture, and some of them analyzed, as to their cultures; followed by a study of the characteristics of human culture itself, which governs the interpretation of archaeological data.

50. **Races of Man.**‡ (2) S. Prerequisite or concurrently: Archaeology 21. Jakeman
A further course in ethnology (introduction to physical anthropology), prerequisite to advanced work in archaeology: the meaning of "race", the criteria or racial classification, and a detailed survey of the races or physical types of mankind, with special attention to the ancient races of the Bible, and the physical types and problem of racial origin of the American Indians.

76. **Cultures of the American Indians.**‡ (2) A.W. (†GER-SS) Prerequisite: Archaeology 21. Christensen
A course in American ethnology, an additional prerequisite to advanced work in American archaeology. The main linguistic, tribal, and political groupings of the native Indian peoples of the New World will be surveyed, as of the time of the coming of the Europeans; followed by a study of culture-trait distributions, culture areas (with an analysis of the principal culture of each area), and inter-culture and inter-area diffusions in native America.

Upper Division Courses

110. **General Near Eastern and Biblical Archaeology.** (3) A.W.S. (†GER-HA; †GER-R) Prerequisite: Archaeology 1 or History 10, or consent of instructor. Jakeman, Christensen
A survey of the principal excavations and monuments of archaeology in Mesopotamia, Egypt, Palestine, and other Near Eastern Biblical lands, contributing to our knowledge of ancient oriental history and civilization. Special attention will be given the important discoveries of archaeology bearing upon the historical claims and geography of the Bible.

*118. **General Classical and Christian Archaeology.** (3) S. (†GER-HA) Prerequisite: History 10; recommended: History 104 and 108 and Church History 114. Two lectures and one 2-hour laboratory period per week. Jakeman
A survey of the historic Graeco-Roman civilization of the Mediterranean, with special attention to the antiquities and excavations illustrating the development of classical architecture and art, and the important discoveries of archaeology illustrating early Christian history.

127. **General Prehistoric Archaeology of the Old World.** (3) W. Prerequisites: Archaeology 1 and 21; recommended: Archaeology 50 and Sociology 108. Two lectures and one 2-hour laboratory period per week. Jakeman
Christensen
A survey and evaluation of the findings of modern archaeological research relating to the early history of man in the

Old World, from the so-called Old Stone Age to the beginning of fully recorded history in the Bronze and Iron ages; also an introduction to early technology, and the methods of interpretation of prehistoric archaeological remains.

130. Ancient Civilizations of America. (3) A.W.S. (†GER-HA; †GER-R) Prerequisite: Archaeology 1 or consent of instructor. Jakeman

A survey of the discovered archaeological history of the New World, with special attention to the ancient Middle American and Andean civilizations and the problem and theories of their origin; followed by a study of the historical record and geography of the Book of Mormon, giving the claims of this early scripture as to the origin and earliest history of these civilizations; and of the latest evidence of archaeology bearing upon these claims. (Introduction to Book of Mormon archaeology.)

***133. Early Peoples of Middle America.‡** (3) A. Prerequisite: Archaeology 130; recommended: Archaeology 50 and 76. Jakeman

A further study in the ethnology and ancient history of the New World, required for work in Middle American archaeology: the native Indian peoples of Mexico, Central America, and the West Indies (languages, physical types, cultures, and major political groupings); and the ancient peoples and history of the central "Mesoamerican" area (southern and central Mexico and northern Central America, i.e. the area of the Book of Mormon peoples), as recorded in the native hieroglyphic books and early Mayan, Aztec, and Spanish chronicles. (Ethnology and ancient history of Book of Mormon lands.)

***135. Archaeology of Middle America.** (3) W. Prerequisite: Archaeology 133. Two lectures and one 2-hour laboratory period per week. Jakeman

The progress of excavation and other archaeological research in Mexico, Central America, and the West Indies, particularly in the central Mesoamerican area of the Book of Mormon civilizations. Special attention will be given to problems of ethnohistory and historical geography in the Mesoamerican area, in light of the archaeological data. (Archaeology of Book of Mormon lands.)

***140. Archaeology of South America.** (3) S. Prerequisites: Archaeology 1 and 76; recommended: Archaeology 50 and 130. Two lectures and one 2-hour laboratory period per week. Christensen

The archaeological history of South America, with special attention to the ancient civilizations and traditionary history of the Andean region.

***145. Archaeology of North America.** (3) (Not given this year.) Prerequisite: Archaeology 76; recommended: Archaeology 50 and 130. Christensen

The archaeological history of North America north of central Mexico, with special attention to the prehistoric agricultural peoples of the Southwest and eastern United States.

151. **Methods of Archaeological Research.** (2) (Not given this year.) Jakeman
The main steps in archaeological research, with special attention to the first step or definition of problem and to the methods of field research in archaeology or the discovery and excavation of ancient sites.

161. **Field Archaeology.** (4) A. Prerequisite: Archaeology 151. Two four-hour field periods per week, first five weeks; two lectures and one four-hour laboratory period, remainder of quarter. Christensen
Student participation in the actual excavation of a prehistoric Indian mound of Utah Valley, and the processing of the excavated material; also practice in the typological classification of archaeological materials and the preparation of the field report.

171. **Interpretative Archaeology.** (3) W. Prerequisites: Archaeology 127, 151, and 161; recommended: Sociology 108 and English 22. Christensen
The interpretation of empiric archaeological data as to culture meaning, and practice in archaeological ethnography; methods of chronological interpretation; also the historical interpretation of archaeological data, and practice in archaeological historiography.

184. **Seminar.** (2) S. Jakeman
Special attention will be given the methods of research in, and teaching of, the archaeology of, the Scriptures.

191, 192, 193. **Special Studies in Archaeology.** (1-3, 1-3, 1-3) A.W.S. Staff
Guided readings and museum or laboratory work in one or more of the following fields:

In Old World archaeology: early prehistoric, later prehistoric, Near Eastern, Mesopotamian, Egyptian, Palestinian, biblical, Aegean, classical, Christian, Northern European, Indian, Far Eastern, Polynesian.

In American archaeology: early prehistoric, Mesoamerican (Mexican and Central American), Peruvian, North Andean and Isthmian, Eastern Mound-Area, Southwestern.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. **History and Theory of Archaeology.** (2) (Not given this year.) Christensen

221. **Archaeological Surveying.** (2) (Not given this year.) Christensen

231. Ceramic Typology. (1) (Not given this year.) Jakeman

250. Studies in Comparative Stratigraphy: Old World. (2) A.W.S. Staff

260. Studies in Comparative Stratigraphy: Americas. (2) A.W.S. Staff

271, 272. Maya Hieroglyphics. (2-2) (Not given this year.) Jakeman

275. Seminar in Mesoamerican Archaeology. (1) S. Staff

285. Seminar in General Comparative Archaeology. (1) S. Staff

294. Library and Museum Research. (2) A.W.S. Staff

297. Field Research. (3, 5, or 8) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Archaeology

(See also courses in Religion.)

Art

Professors: de Jong, E. M. Jenson, B. F. Larsen.
Associate Professor: Andrus, Mathews (Chairman, 296E).
Assistant Professors: Gamett, Gunn, Turner, W. B. Wilson.
Instructors: Boel, L. Taylor.

Students who elect their major in Art are required to complete twelve hours work in Art 11, 21, and 22, or their equivalents, before taking upper division work.

In addition to the general requirements listed above, a major in Art must include 9 hours in Art History, and 24 hours in one of the seven areas of concentration.

The curriculum for Art majors who are concentrating on commercial art and those who are preparing to teach art in the secondary schools may lead to either a Bachelor of Arts, or a Bachelor of Science degree. Majors who are concentrating on Crafts, Graphics, Interior Design, Painting or Sculpture will work towards a Bachelor of Arts degree.

Areas of Concentration

Commercial Art

Commercial Art	8
Design	2
Drawing	2
Graphics	2
Painting	7
Photography	3
Total Hours	24

Crafts

Crafts	8
Design	2
Drawing	2
Graphics	2
Interior Design	2
Painting	4
Sculpture	2
Elective	2
Total Hours	24

Graphics

Graphics	8
Crafts	2
Design	2
Drawing	2
Interior Design	2
Painting	4
Sculpture	2
Elective	2
Total Hours	24

Interior Design

Interior Design	9
Crafts	2
Drawing	2
Graphics	2
Painting	7
Sculpture	2
Total Hours	24

Painting

Painting	8
Crafts	2
Design	2
Drawing	4
Graphics	2
Interior Design	2
Sculpture	2
Elective	2
Total Hours	24

Sculpture

Sculpture	8
Crafts	2
Design	2
Drawing	2
Graphics	2
Interior Design	2
Painting	4
Elective	2
Total Hours	24

Teaching Art

Crafts	8
Advanced Design	2
Commercial Art	4
Graphics	2
Interior Design	2
Painting	4
Sculpture	2
Total Hours	24

The minimum requirements for a teaching minor in Art should include:

Drawing (lower division)	4
Design (lower division)	4
History of Art	3
Crafts	4
Commerical Art	2
Painting	4
Sculpture	2
Interior Design	2
Graphics	2
Total Hours	27

Lower Division Courses

Appreciation

1. **Introduction to Art.** (2) A.W.S. (GER-HA) Turner
Recommended for everyone who desires a better understanding of and a greater appreciation for painting, sculpture, architecture, and other graphic and plastic arts. Not for art majors.

Design

10. **Theory and Practice of Design.** (2) A.W.S. (GER-HA) Gunn, Staff
Study of the fundamental principles of art affecting the use of form, color, and texture in structural design and decoration. Not for art majors.

11. **Basic Design.** (4) A.W.S. Staff
Application of the principles of design in use of plastic and graphic materials. Studio time required.

Drawing

21. **Elementary Drawing.** (4) A.W.S. (GER-HA) Staff
Drawing with various media. Emphasis on development of perceptive skill, experience in organization, and representation of the elements of visual communication. Study of the theories and approaches to drawing. Studio time required.

22. **Elementary Figure Drawing.** (4) A.W.S. (GER-HA) Andrus - Gunn
Drawing from the model. Study of and experience with the elements of graphic expression. Form is emphasized. Studio time required.

Painting

27. **Oil Painting.** (2) A.W.S. (GER-HA) Turner
An introduction to the use of oil colors as a medium of expression.

33. **Water Color Painting.** (2) A.W.S. (GER-HA) Turner
Survey and application of the various techniques of water color painting.

Commercial Art

39. **Pen Lettering.** (2) A.W.S. Jenson
Study of basic pen alphabets. (See Marketing 39.)

40. **Brush Lettering.** (2) A.W. Gunn
The study of brush manipulation and letter structure for display advertising. (See Marketing 40.)

Graphics

50. **Print Making.** (2) A.W.S. Andrus
An introduction to woodcut, engraving, etching, lithography, and silk screen.

Sculpturing

56. **Sculpture.** (2) A.W.S. Turner
Modeling and casting.

Crafts

59. **Ceramics.** (2) A.W.S. (GER-HA) Wilson
Ceramics and pottery with clay as the basic medium.

63. **Crafts.** (2) A.W.S. (GER-HA) Staff
Leather, wood, plastics, and other media used as a basis for creative design.

Upper Division Courses

History and Appreciation

101. **Aesthetics.** (2) W. (GER-HA) de Jong
Theoretical and practical criteria of aesthetic values.

103. **Ancient and Primitive Art.** (2) A. (GER-HA) Staff
Introduction to the history of Art from prehistoric time to the Early Christian era. Primitive Art forms will also be studied.

104. **Medieval Art.** (2) W. (GER-HA) Staff
Study of Architecture, Painting, and Sculpture from the dissolution of the Roman empire to the Renaissance.

105. **Renaissance Art.** (2) S. (GER-HA) Staff
Study of the history of Art through the Renaissance and to the close of the eighteenth century.

106. **Art History and Appreciation.** (3) A. (GER-HA) Staff
Interpretation and classification of masterpieces of architecture, sculpture, graphic arts, ornament, and painting to the end of the eighteenth century.

107. **Contemporary Art.** (3) W. (GER-HA) Larsen
The rise and progress of contemporary art in Europe and America.

108. **American Art.** (3) S. (GER-HA) Larsen
History and evaluation of painting, sculpture, architecture, and industrial arts in America.

Advanced Design

110. **Advanced Design.** (3) A. Larsen
A study of art structure as a means for the expression of ideas and emotions.

111. Mural Design. (2) W. Andrus
Principles of design applied to mural decoration.

Interior Design

113. Home Planning. (2) A.W. Staff
Application of the principles of design to home planning.

114. Interior Design. (2) W.S. Staff
The decorative and functional features of the interior of the home.

115, 116, 117. Interior Design. (3-3-3) A.W.S. Taylor
History of interior design. A study of period furnishings. A practical study of manufacture, design, installation, and care of media and materials used in interior design and home furnishings. Practical problems in interior decoration. (See Family Life and Home Management.)

Art Education

120. Basic Classroom Procedures. (4) A. Prerequisites: ERS 103 and 100. Gunn
Lectures, demonstrations, observations.
A basic course concerned with materials, procedures, and techniques which give experience in providing effective learning activities for secondary school students.

Advanced Drawing

121. Interpretative Drawing. (2) A. Andrus
Advanced work in drawing with emphasis on the development of individuality of expression.

122. Figure Drawing. (2) W.S. Gunn
Drawing from the model with emphasis on structure and expressive elements.

Painting

127. Oil Painting. (2) A. Turner
Outdoor painting.

128. Oil Painting. (2) W. Turner
Still life painting.

129. Oil Painting. (2) S. Turner
Landscape painting.

133. Water Color Painting. (2) A. Turner
Landscape composition.

134. Water Color Painting. (2) W. Turner
Landscape, still-life, and figure composition.

135. Water Color Painting. (2) S. Turner
Outdoor sketching.

Art Education

138. Secondary Curriculum and Participation. (4) W. Prerequisite: Art 120. Gunn

Lectures, conferences, and participation at the B.Y. High School in non-instructional activities.

Concerned with the development of techniques of providing continuous, well-organized learning experiences for secondary school pupils. Emphasis will be placed on materials and procedures applicable in the teaching of subjects within the student's area of specialization. **Fees:** A special fee of $20.00 (prorated over the two quarters in which the student is registered for Art 138 and 139 at $10.00 per quarter) is charged to equalize the cost of travel for all student teachers regardless of location of cooperating public schools.

139. Secondary Student Teaching. (6) A.W.S. Prerequisites: Art 138 and completion of two-thirds of courses required for teaching major and minor. Gunn

Supervised teaching in a public secondary school for a full quarter on a half-day basis. Close contact with faculty and students, participation in co-curricular activities, and much responsible teaching are expected. Student teachers will participate in weekly seminars and periodic conference with supervisors. The nature of this course dictates that student must limit their total load to 15 quarter hours. (See explanation of fees above.)

Commerical Art

140. Lettering. (2) A.W. **Gunn**

Skills and letter structure for lettering reproduced for the printed page.

141. Layout. (2) S. Prerequisite: Art 140. **Gunn**

Design principles as they pertain to the organization of elements on the printed page.

142. Illustration. (2) W. **Gunn**

Black and white illustration in brush and ink, watercolor, scratchboard, and related techniques for line and half-tone reproduction.

143. Fashion Illustration. (2) S. Gunn

Fashion drawing in various media.

Photography

147. Portrait Photography. (3) W. Two lectures and one three-hour laboratory period per week. Prerequisite: Physics 26. Boel

General portrait studio procedures, including retouching, portrait darkroom techniques. Emphasis on the plastic quality of light on the human face and figure.

148. Pictorial Photography. (3) S. Two lectures and one three-hour laboratory period per week. Prerequisites: Physics 26 and Art 10. Boel

A study of art structure in its application to photography. Practical experience in photographing the landscape, still-life and the human figure.

Graphics

150. Engraving and Woodcut. (2) A. Andrus
Work in relief print making.

151. Etching and Lithography. (2) W. Andrus
Work on copper and zinc employing aquatint, intaglio and soft ground as well as use of lithographic stone.

152. Silk Screen. (2) S. Andrus
Preparation of various types of stencils for print making and commercial work.

Sculpturing

156. Sculpture. (2) A. Turner
The use of clay as an expressive medium.

157. Sculpture. (2) W. Turner
Modeling the full figure.

158. Sculpture. (2) S. Turner
Paster casting, stone and bronze.

Crafts

159, 160, 161. Ceramics. (2-2-2) A.W.S. Wilson
Work in all phases of ceramics, desiging through firing.

162. Textile Design. (2) A.W.S. Staff
Silk screen, block printing, stenciling, painting and dying as media for textile design.

164. Plastics. (2) S. Gamett
See Industrial Art 5.

166. Metalwork and Jewelry. (2) W. Staff
Copper, silver, wood, enameling in creative design.

167. Wood Carving. (2) S. Staff
Bas-relief and carving in the round with emphasis on design.

Art Education

168. Art for Elementary School Teachers. (3) A.W.S.
Jenson, Andrus
The art needs of children, and psychological procedures in teaching art. (Seel Elementary Instruction 106.)

Painting

174, 175, 176. Portrait and Figure Painting. (2-2-2) A.W.S.
Andrus
Painting the clothed figure with special emphasis on design, study of character, three-dimensional form in space, and expressive devices.

180, 181, 182. Mural Painting. (2-2-2) A.W.S. Three laboratory periods per week. Andrus

Historical backgrounds, mural design, mural painting.

186, 187, 188. Studio Art. (1-4, 1-4, 1-4) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

202. Composition. (Arr.) W. Turner

211. Contemporary Mural Design. (Arr.) W. Andrus

215. Period Furnishing. (3) A. Taylor

216. Decorative Material for Interior Design. (3) W. Taylor

217. Practical Problems in Interior Design. (3) S. Taylor

221, 222, 223. Advanced Drawing and Painting. (Arr.) A.W.S. Andrus

224, 226. Landscape Painting. (Arr.) A.S. Turner

225. Still-Life Painting. (Arr.) W. Turner

227, 228, 229. Pictorial Composition. (Arr.) A.W.S. Turner

233, 234, 235. Advanced Water Color Painting. (Arr.) A.W.S. Turner

239. Lettering and Layout for Reproduction. (Arr.) A.W.S. Gunn

242. Various Media in Illustration. (Arr.) W. Gunn

250. Experimental Relief Printing. (Arr.) A. Andrus

251. Color Lithography and Etching. (Arr.) W. Andrus

252. Seriography. (Arr.) S. Andrus

256, 257, 258. Advanced Sculpture. (Arr.) A.W.S. Turner

265. Ceramics. (Arr.) A.W.S. Wilson

266. Metal Work and Jewelry. (Arr.) W. Staff

267. Wood Sculpture. (Arr.) S. Staff

271. Survey of Recent Studies in Art Education. (3) A. Gunn

274, 275, 276. Portrait and Figure Design and Painting. (Arr.) A.W.S. Andrus

280, 281, 282. Design and Painting Mural Types. (Arr.) A.W.S. Andrus

283, 284, 285. Studio Art. (Arr.) A.W.S. Staff

286, 287, 288. Studio Art. (Arr.) A.W.S. Staff

290, 291, 292. Color. (2-2-2) A.W.S. Andrus

299. Seminar. (1-1-1) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Bacteriology

Professors: J. V. Beck, Martin (emeritus)
Associate Professors: D. H. Larsen (chairman, 124B), Hallam
Assistant Professor: Donaldson

Bacteriology is one of the subjects comprising the composite major in Biological Science designed for prospective teachers.

Medical Technology is under the direction of the Department of Bacteriology. The advisor is Professor Donaldson.

The minimum requirements for a major in bacteriology are completion of the following courses or their equivalents in bacteriology and supporting fields: Bacteriology, 33 hours; Zoology or Botany, 10 hours; Chemistry 7, 8, 9, 110, 21, 22; and Mathematics 11. Recommended courses are: Bacteriology 101, 119, 120, 121, 181, 182, 183, 190, and 196; Botany 1, 102, 140; Chemistry 14, 15, 16, 31, 151, 152, 153, 181, 182, 183; Mathematics 11, 12, 13, 91, 92, 93 or 11, 12, 15, 16, 17; Physics 31, 32, 33; Zoology 11, 18, 45 and 174.

The following curriculum is recommended for students who want adequate preparation for post-graduate university training in bacteriology. The courses of physics, advanced mathematics, and advanced chemistry may be replaced by other courses in the physical or biological sciences for students who do not plan on graduate work.

First Year

	A	W	S
Chemistry 14, 15, 16	5	5	5
Math. 11, 12, 13	5	5	5
English 1, 2, 3, or	3	3	3
(12, 13)		3	3
Religion	2	2	2
Physical Education	1	1	1
Health			1
Total Hours	16	16	17

Second Year

Chemistry 31	5		
Physics 31, 32, 33	5	5	5
Zoology or Botany		5	5
History 70			5
Social Science	5	5	
Religion	2	2	2
Total Hours	17	17	17

Third Year

Bacteriology 101, 181, 182	5	5	5
Chemistry 151, 152, 153	5	5	5
Mathematics 91, 92	4	4	
English 50			4
Religion (Humanities)	3	3	3
Total Hours	17	17	17

Fourth Year

Bacteriology 183, 190	5		5
Bacteriology 121			3
Bacteriology 196	1	1	1
Zoology 174		4	
Chemistry 181, 182, 183	5	5	5
Botany 102	3		
Religion	2	2	2
Elective (Bacteriology)		3	
Elective (Humanities)	2		
Elective		2	
Total Hours	18	17	16

Lower Division Courses

21. General Bacteriology. (4) A.W.S. (GER-BS) Three lectures and one two-hour laboratory period per week. Staff

A study of the general characteristics of microorganisms and their relation to man.

Upper Division Courses

101. Microbiology. (5) A. (GER-BS) Three lectures and two three-hour laboratory periods per week. Prerequisites: Organic Chemistry. J. Beck

Introduction to microbiology.

119. Food Microbiology. (3) A. One lecture and two two-hour laboratory periods per week. Prerequisite: Bacteriology 21 or 101. Donaldson

A study of the microbiology of food.

120. Dairy Microbiology. (3) W. One lecture and two two-hour laboratory periods per week. Prerequisite: Bacteriology 21 or 101. Larsen

A study of the microbiology of dairy products.

121. Water and Sewage Microbiology. (3) S. (†GER-BS) One lecture and two two-hour laboratory periods per week. Prerequisite: Bacteriology 101.

A study of the microbiology of water purification and sewage disposal.

160. Sanitation and Public Health. (3) A.W.S. (GER-BS). Staff

Sanitary and public health practices.

181. Pathogenic Microbiology. (5) W. Three lectures and three two-hour laboratory periods per week. Prerequisite: Bacteriology 101 or the consent of the instructor. Larsen

A study of the characteristics of pathogenic bacteria, viruses, rickettsia, yeasts, and molds.

182. Pathogenic Microbiology. (5) S. Three lectures and three two-hour laboratory periods per week. Prerequisite: Bacteriology 181. Continuation of Bacteriology 181. Larsen

183. Immunology. (5) A. Three lectures and two three-hour laboratory periods per week. Prerequisite: Bacteriology 181. Donaldson

Theories of immunity; training in serological methods.

186, 187, 188. Applied Clinical Diagnosis Laboratory. (5) A.W.S. Larsen

Work is done in an approved hospital during a year's practical internship. Hospital selected must be accredited by council of Medical Education of the A.M.A. and its pathologist and radiographic technician recognized by American Society of Clinical Pathologists. Final credits allowed on basis of a statement from the approved pathologist that student has completed intern year and is eligible to take examinations of the American Society of Clinical Pathologists.

190. Bacterial Physiology. (5) S. Three lectures and two three-hour laboratory periods per week. Prerequisite: Bacteriology 101. J. Beck

A study of the cytology, taxonomy, genetics, and metabolism of microorganisms.

192. Soil Microbiology. (See Agronomy 192.)

193. Soil Microbiological Laboratory. (See Agronomy 193.)

196. Seminar. (1) A.W.S. Staff

198. Special Problems in Bacteriology. Credit and subject matter to be arranged. A.W.S. Staff

Individual work on research problems. Types of problems selected based on previous preparation of student.

Graduate Courses

For regulations governing study beyond the bachelor's degree see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201, 202, 203. Advanced Microbiology. (5-5-5) A.W.S. Prerequisite: graduate standing in bacteriology or chemistry. J. Beck, Larsen

231. Virology. (5) W. Donaldson

241. Advanced Immunology. (3) S. Donaldson

294. Graduate Seminar. (1) A.W.S. Staff

299. Research to Furnish Data for Thesis. (Arr.) Staff

300. Thesis for Master's Degree (Arr.) Staff

Banking

(See courses in Finance and Banking.)

Bible and Modern Scripture

(See courses in Religion.)

Botany

Professor: Harrison (chairman, 232 B).
Assistant Professors: K. H. McKnight, E. M. Christensen, Stutz.
Instructor: Murdock.

Students majoring in Botany (except those planning to qualify for Biology teaching or Range Management) should follow this sequence of courses as closely as possible.

Freshman Year	A	W	S
Botany 1, 3	5		5
Zoology 11		5	
Math 1, 11, 12	5	5	5
English 1, 2, 3	3	3	3
Physical Education	1	1	1
Health 1		1	
Religion	2	2	2
Electives	2	1	2
Total hours	18	18	18

Sophomore Year	A	W	S
Botany 18, 121, 101	3	3	3
Chemistry 14, 15, 16	5	5	5
Bacteriology 21 or 101			4
History 70	5		
Social Science		5	
English Literature			4
Religion	2	2	2
Electives	3	3	
Total hours	18	18	18

Junior Year	A	W	S
Botany 102, 103, 106	3	3	3
Botany 180, 181	1	1	
Physics 31, 32, 33	5	5	5
Agronomy 41			4
Chemistry 31		5	
Entomology 30	5		
Zoology 12			5
Religion	2	4	
English Literature	2		
Electives			1
Total hours	18	18	18

Senior Year	A	W	S
Botany 150, 140, 155	5	5	2
Botany 183, 184	1	1	
Geology 1	3		
Agronomy 107			3
Zoology 45			5
Social Science		5	
Religion	2	2	2
Humanities & Aesthetics or Language sequence	5		
Electives	2	5	2
Total hours	18	18	18

Students planning to teach Biology should take the following sequence of courses as nearly as possible.

Freshman Year	A	W	S
Botany 1, 3	5		5
Zoology 11, 12		5	5
Math 1, 11	5	5	
English 1, 2, 3	3	3	3
Physical Education	1	1	1
Health 1		1	
Religion	2	2	2
Total hours	16	17	16

Sophomore Year	A	W	S
Botany 18, 121, 101	3	3	3
Chemistry 14, 15, 16 or 7, 8, 9	5	5	5
Geology 1	3		
History 70			5
Zoology 13 or 45	5		
Religion	2	2	2
Bacteriology 4		4	
Ed. Inst. 170	3		
Ed. Res. & Serv. 103			3
Total hours	18	17	18

Junior Year	A	W	S
Botany 102, 103, 106	3	3	3
Botany 180, 181	1	1	
Agronomy 41			4
Entomology 30	5		
Zoology 157 or 158	(3)		(3)
Zoology 159 or 160		3	(3)
Religion	2	2	2
Educ. Research and Services 100	4		
Ed. Inst. 120		4	
Ed. Inst. 138			4
English Literature	2	2	2
Humanities & Aesthetics		3	3
Total hours	17	18	18

Senior Year	A	W	S
Botany 150, 140, 155	5	5	2
Botany 183, 184	1	1	
Social Science		5	5
Humanities & Aesthetics			3
Religion	2	2	2
Ed. Inst. 139	6		
Ed. Inst. 185		3	
Ed. Adm. 100			3
Ed. Val. Prog. 100			3
Total hours	14	16	18

Students who expect to qualify for positions in Range Management should follow this sequence of courses as nearly as possible. Methods in Range Management, Botany 158, should be taken the first term of summer school following the Junior year.

Freshman Year	A	W	S
Botany 1, 2, 3	5	4	5
English 1, 2, 3	3	3	3
Physical Education	1	1	1
Health 1		1	
Math 1, 11, 12	5	5	5
Religion	2	2	2
Electives	2	2	2
Total hours	18	18	18

Sophomore Year	A	W	S
Botany 135, 18	3	3	
Zoology 11			5
Chemistry 7, 8, 9	5	5	5
Agronomy 41, 22		4	3
Geology 1	5		
Physics 21		4	
Drawing 43	2		
Religion	2	2	2
Elective			3
Total hours	17	18	18

Junior Year	A	W	S
Botany 150, 166	5		3
Botany 180, 181	1	1	
Animal Husbandry 7		5	
Agronomy 107			3
Math 152s	5		
Zoology 45, 146		5	5
Social Science (Incl. History 70)	5		5
Economics 1		5	
Religion	2	2	2
Total hours	18	18	18

Senior Year	A	W	S
Botany 140, 155		5	2
Zoology 157	3		
Animal Husbandry 154, 155	4	5	3
Agronomy 173			4
English Literature	3	3	
Humanities & Aesthetics	3	3	3
Bacteriology 21			4
Religion	2	2	2
Electives	3		
Total hours	18	18	18

Botany is one of the subjects comprising the composite major in Biological Science designed for prospective teachers.

Lower Division Courses

1. **General Botany.** (5) A.W.S. (GER-BS) Three lectures and two two-hour laboratory periods per week. A prerequisite course to further work in the plant sciences. Recommended for the non-science student. Staff

The structure, physiology and reproduction of the higher plants.

2. **The Plant Kingdom.** (4) W. (GER-BS) Three lectures and one two-hour laboratory period per week. McKnight

A survey of the plant kingdom, including the morphology of representative species.

3. **Plant Classification.** (5) S. (GER-BS) Three lectures and two two-hour laboratory periods per week. Harrison

The general principles of taxonomy and the use of manuals with emphasis on the classification of the local flora.

10. **Trees and Shrubs.** (3) S. (GER-BS) Staff

The names and characteristics of the common trees and shrubs and their usage as ornamentals and in commerce.

18. **Principles of Genetics.** (3) A.W.S. (†GER-BS) Three lectures. Prerequisites: Botany 1 or Zoology 11. Stutz

A study of the principles of heredity and variations.

95. **Histological Technique.** (3) A. One lecture and six hours of laboratory work per week. Prerequisite: Botany 1. McKnight

The techniques of preparing plant tissues for microscopic examination.

Upper Division Courses

101. **Algae.** (3) S. Three two-hour periods per week. Prerequisite: Botany 1. McKnight

A study of the structure, relationships, and life histories of the main groups of algae.

102. **Fungi.** (3) A. Three two-hour periods per week. Prerequisite: Botany 1. McKnight

A study of the structure, relationships, and life histories of representative fungi.

103. **Mosses and Ferns.** (3) W. Three two-hour periods per week. Prerequisite: Botany 1.

A study of the structure, relationships, and life histories of mosses, liverworts, and ferns.

106. **Seed Plants.** (3) S. Three two-hour periods per week. Prerequisite: Botany 1. McKnight

A study of the structure, relationships, and life histories of the seed plants.

112. General Cytology. (4) W. Two lectures and two laboratory periods per week. Prerequisite: Botany 1 or Zoology 11. Stutz

A study of the organization and functions of protoplasm.

121. Anatomy. (3) W. Three two-hour periods per week. Prerequisite: Botany 1. McKnight

The origin, development, and maturation of the structures of vascular plants.

130. Advanced Taxonomy. (3-5) S. Prerequisites: Botany 3, 18. Harrison

Critical study of the characteristics, ecology, and classification of a limited plant group or plants of a limited area.

131. Fleshy Fungi. (3) Summer. McKnight

The names, characteristics, and distribution of the edible and poisonous mushrooms, pore fungi, and puffballs of Utah.

135. Range Forage. (3) A. One lecture and two two-hour laboratory periods per week. Prerequisite: Botany 3. Murdock

The characteristics, distribution, and value of the more important forage plants of the Western Range. (See Agronomy 135.)

140. Plant Physiology. (5) W. Three lectures and two two-hour laboratory periods per week. Prerequisites: Botany 1, Chemistry 7 or 14. Harrison

Water relations, synthesis of foods, digestion, mineral nutrition, and growth in the higher plants.

150. Plant Ecology. (5) A. (GER-BS) Three lectures per week and six field trips. Prerequisite: Botany 1 or Zoology 11. Christensen

The relations of plants to their environment, their adaptations to factors of soil and climate, and their influence on each other.

155, 156. Field Ecology. (2-2) S. One lecture per week and one long field trip of about one week's duration. Prerequisite: consent of instructor. Murdock

Field studies of plants and plant communities and the environmental conditions with which they are associated.

158. Methods in Range Management. (3-5) S. Prerequisite: Botany 150. Christensen

Field methods of estimating vegetation, measuring factors of soil and climate, principles of sampling applied toward the solution of simple field problems.

165. Plant Geography. (3) A. (†GER-BS) Prerequisite: Botany 1 or Zoology 11. Christensen

Plant distribution and the origin of plant communities in the light of present and recent geological conditions.

166. Conservation of Natural Resources. (3) W. (GER-BS) Murdock

The need for, and the means of providing, conservation of forests, shrubs, range forage, and other plant cover as they affect land-use management. The influences of vegetation on water supplies and uses, on soil preservation, on livestock and wildlife management, and on recreation are considered.

170. Diseases of Cultivated Plants. (5) A. Three lectures and two two-hour laboratory periods per week. Prerequisite: Botany 1; Botany 102 recommended. Stutz

Important diseases of cultivated plants, their identification, causes, and methods of control. (See Horticulture 170)

180, 181. Seminar—Junior Year. (1-1) A.W. Required of all majors in their junior year. Staff

The presentation and discussion of topics from the current literature of the field.

183, 184. Seminar—Senior Year. (1-1) A.W. Required of all majors in their senior year. Staff

The presentation and discussion of topics from the current literature of the field.

190, 191, 192. Special Problems. (1-5) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

215. Cytogenetics. (4) S. Three lectures and one two-hour laboratory period per week. Prerequisite: Botany 112. Stutz

231. Advanced Taxonomy. (2-5) S. Prerequisites: Botany 3, 18. Stutz

236. Agrostology: Taxonomy and Ecology of Grasses. (3) A. Prerequisite: Botany 3; Botany 18 recommended. Harrison

245. Plant Nutrition and Growth. (3) A. Prerequisites: 140; Chemistry 14, 15, 16; Organic Chemistry recommended. Harrison

252. Field Ecology. (2) S. Prerequisite: Consent of instructor. Murdock

254. Methods in Range Management. (3-5) S. Prerequisites: 150, 155. Christensen

259. Range and Forest Ecology. (2-4) A.S. Prerequisite: Consent of instructor. Harrison, Murdock

260. Experimental Ecology. (3) S. Prerequisite: 140, 150. Harrison

268. Conservation of Natural Resources. (2-5) A.W.S. Prerequisite: Consent of instructor. Christensen, Murdock

285, 286. Seminar. (1-1) A.W. Staff

290, 291, 292. Special Problems. (2-5) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Business Education and Office Management

Associate Professors: E. L. Christensen, Evan Croft, D. A. Peterson.

Assistant Professors: J. Black, Crandall (chairman, 123 N), Stansfield, E. P. Taylor.

Instructors: Brough, Guymon, Polson, Thurgood.

Business Education

The program in Business Education is planned for those who desire to prepare for teaching of business subjects in high school. This can be done concurrently with preparing for a secretarial or allied office occupation—providing the student decides upon this dual preparation during his sophomore year or the early part of his junior year. Both men and women completing requirements for teaching and an office occupation find excellent opportunities in either area.

Office Management

The program in Office Management is planned for those who desire to become executive secretaries. It is designed to meet the increasing demand for graduates who have a broad education in business subjects and, in addition, possess proficiency in office skills and management.

The following programs include the requirements for majors in this department:

Option No. 1—Business Education Major

I. Freshman and Sophomore Years

A. General Education Requirements	Hours
1. Religious Education	12
2. Physical Science (Classes in two depts.)	9
3. Biological Science	8
4. Social Science: Economics 1	5
History 70	5
5. Humanities and Aesthetics (Classes in two depts.)	5
6. English Composition	9
7. Physical Education and Health	4
B. Office Management requirements	
1. Office Management 23, 24 (Typewriting)	4
2. Office Management 11, 12, 13 (Shorthand)	8
3. Office Management 26 (Calculating Machines)	2
4. Office Management 31 (Business English)	3
5. Accounting 1 and 2	10

II Junior and Senior Years

A. General Education requirements	Hours
1. Religious Education (Upper division courses)	12
2. Social Science	5
3. Humanities and Aesthetics	10

B. Office Management requirements	
1. Off. Mgt. 151 (Shorthand Transcription)	4
2. Off. Mgt. 154 (Records Control and Off. Mach.)	3
3. Off. Mgt. 155 (Directed Office Experience)	5
4. Off. Mgt. 110 (Business Report Writing)	3
5. Off. Mgt. 160 or Fin. & Banking 154 (Office Management or Commercial Law)	3 or 5

C. Professional Education requirements	
1. Educ. Psy. 103 (Growth & Development. This course should be taken in the spring of the Sophomore year, or the fall or winter of the junior year.)	
2. Educ. Psy. 100 (Educational Psychology)	4
3. Educ. Instruction 170 (Health Education)	3
4. Bus. Educ. 120 (Basic Classroom Procedures)	4
5. Bus. Educ. 138 (Curriculum and Participation)	4
6. Bus. Educ. 139 (Secondary Student Teaching)	6
7. Educ. Instruction 185 (Principles of Teaching)	3
8. Educ. Adm. 100 (Principles of Education)	3
9. Phil. of Ed. 100 or Hist. of Ed. 116	3

Teaching Major: Completion of the above departmental requirements will satisfy the required teaching major.

Teaching Minor: This will consist of at least 24 hours in a related field. See the College of Education section of the catalog for **24 hour lists** of courses in various fields which must be taken to complete a minor.

Option No. 2 — Office Management Major

I. Freshman and Sophomore years

A. General Education requirements	Hours
1. Religious Education	12
2. Physical Science (Classes in two departments)	9
3. Biological Science	8
4. Social Science: Economics 1	5
5. Humanities and Aesthetics: English Literature courses	6
6. English Composition	9
7. Physical Education and Health	4

B. Office Management requirements	
1. Off. Mgt. 21, 22, 23, 24 (Typewriting)	8
2. Off. Mgt. 11, 12, 13 (Shorthand)	12
3. Off. Mgt. 31 (Business English)	3
4. Off. Mgt. 26 (Calculating Machines)	2
5. Accounting 1 and 2	10

II. Junior and Senior years

A. General Education requirements	Hours
1. Religious Education (Upper division courses)	12
2. Social Science: History 70 and 5 hrs. of upper division	10
3. Humanities and Aesthetics: Upper division	9

B. Office Management requirements	
1. Off. Mgt. 14, 151, 152 (Shorthand)	12
2. Off. Mgt. 154 (Records Control and Office Mach.)	3
3. Off. Mgt. 155 (Directed Office Experience)	5
4. Off. Mgt. 110 (Business Report Writing)	3
5. Off. Mgt. 160 (Office Management)	3
6. Fin. & Banking 154 (Commercial Law)	5
7. Accounting 35 (Business Mathematics)	5
8. Economics 75 (Business Statistics)	5

BUSINESS EDUCATION

120. Basic Classroom Procedures: (4) A.W.S. Lectures, demonstrations, observations. Prerequisites: ERS 103 and 100.

A basic course concerned with materials, procedures, and techniques which give experience in providing effective learning activities in secondary school business subjects.

138. Secondary Curriculum and Participation. (4) A.W.S. Lectures, conferences, and participation at the B.Y. High School in non-instructional activities. Prerequisite: Bus. Edu. 120.

The development of techniques which provide continuous, well-organized learning experiences for secondary school pupils. Emphasis will be placed on planning, materials, and procedures applicable in the teaching of business education subjects.

Fees: A special fee of $20.00 (pro-rated over the two quarters in which the student is registered for Bus. Educ. 138 and 139 at $10.00 per quarter) is charged to equalize the cost of travel for all student teachers regardless of location of cooperating public schools.

139. Secondary Student Teaching. (6) A.W.S. Prerequisites: Bus. Educ. 138 and completion of two-thirds of the courses required for a teaching major and minor or a composite major. Staff

Supervised teaching in a public secondary school for a full quarter on a half-day basis. Close contact with faculty and students, participation in co-curricular activities, and much responsible teaching are expected. Student teachers will participate in weekly seminars and periodic conferences with supervisors. The nature of this course dictates that students must limit their total load to 15 quarter hours. (See explanation of fees above.)

178. Fundamentals of Business Education. (3) S. Staff

A course designed to lay the foundation for an understanding of the fundamentals of business education.

GENERAL OFFICE MANAGEMENT

26. **Calculating Machines.** (2) A.W.S. Prerequisite: Accounting 1. Staff

Instruction and training in the operation of key-driven calculators, ten-key adding and listing machines, and rotary-driven calculators. Practical problems are used in training.

40. **Basic Office Procedures.** (3) S. Staff

For those who do not plan to take Off. Mgt. 154 and 155. Provides experience in the use of the telephone, inter-office communications, duplicating machines, filing, and machine transcription.

125. **Machine Accounting.** (2) A.W.S. Staff

(See Accounting 125.)

154. **Records Control and Office Machines.** (3) A.W. Prerequisite: Off. Mgt. 24 or equivalent. Staff

A course to develop skill in (1) fundamentals of filing, (2) machine transcription, (3) spirit, stencil, gelatin, and offset duplicating.

155. **Directed Office Experience.** (5) W.S. Prerequisites: Off. Mgt. 151 and 154 or equivalent; shorthand speed of 100; typing speed of 60. Staff

A culminating course for those who desire to qualify for secretarial positions; provides intensive experience in office procedures; actual on-the-job application.

160. **Office Management.** (3) W. Staff

Principles and techniques of efficient and effective office procedure and planning, including the functions of personnel, equipment, and systems.

COMMUNICATIONS

31. **Business English.** (3) A.W.S. Prerequisites: English 1, 2, and 3; also English 21 if student is deficient in knowledge of practical business grammar. Staff

A study in current means of communication: telephone, telegram, etc. Experience in the composition of business letters; assigned writing includes emphasis on application, sales, service, collection, adjustment and credit letters.

110. **Business Report Writing.** (3) A.S. Prerequisite: Off. Mgt. 31. Staff

An intensive experience in communicating business analysis and results of fact-finding procedures through various types of business reports. The course is structured around the planning for problem solving, principles of reporting, forms of exposition, statistical aids, and manuscript writing.

SHORTHAND AND TYPING

11. **Beginning Shorthand.** (4) A.W.S. Staff

A study of the fundamentals of shorthand with emphasis on developing fluency in reading and writing from shorthand plates. Students with previous training in Gregg shorthand are not permitted to take this course for credit.

12. **Shorthand Dictation.** (4) A.W.S. Staff
A review of shorthand fundamentals, and an introduction in taking dictation of business correspondence.

13. **Intermediate Shorthand.** (4) A.W.S. Staff
Development of shorthand writing and control, beginning with 60 words per minute with the objective of developing a rate of 70 to 90 words per minute on new material.

14. **Applied Stenography.** (4) A.W.S. Staff
Introduction to transcription through application of shorthand to business vocabularies. This course is for students who write approximately 80 words per minute and who are desirous of building a speed of 100 words per minute on new material.

15. **Applied Stenography.** (4) A.W.S. Staff
An optional course designed for students who need to build their speed to 100 words per minute or above before taking Off. Mgt. 151—Transcription. Not required for a major in this department.

21. **Fundamentals of Typewriting.** (2) A.W.S. Staff
Mastery of the keyboard and development of basic skills. Students with previous training in typewriting are not permitted to take this course for credit.

22. **Intermediate Typewriting.** (2) A.W.S. Staff
Development of speed and control, and an introduction to the arrangement of typewritten material.

23. **Production Typewriting.** (2) A.W.S. Staff
Improvement of basic skills; measurement of production power on business letters, tabulated reports, and manuscripts; and composition at the typewriter.

24. **Secretarial and Statistical Typewriting.** (2) A.W.S. Staff
Production typewriting to develop skill, accuracy, and efficiency in secretarial and statistical typewriting. Production includes business letters, legal papers, payrolls, invoices, minutes, printed business forms, tabulations, rough drafts, and statistical reports.

151. **Transcription.** (4) A.W.S. Prerequisite: Off. Mgt. 31. Staff
Emphasis is placed on rapidly transcribing mailable letters. Upon entering this course, students should be able to take dictation at 100 words per minute and typewrite at 50 words per minute.

152. **Advanced Transcription and Speedbuilding.** (4) A.S. Staff
Emphasis is placed on accurate and rapid shorthand production. For students who write 100 words per minute and who desire to increase their speed to 120 words per minute.

153. Expert Shorthand. (4) W. **Staff**

Expert shorthand speed course for students writing 120 words per minute and above. Includes specialized vocabulary and testimony dictation; emphasis is placed on increasing shorthand ability through speed phrases and reporting shortcuts.

184. Advanced Expert Shorthand and Introduction to Court Reporting. **Staff**

Dictation above 140 words per minute with introduction to court reporting and Congressional Record material. Designed for the students who desire rapid dictation in order to make reports of committee meetings, board of director's meetings, or conferences.

Business Program

(Pre-graduate)

(See College of Commerce.)

Chemistry

Chemistry and Chemical Engineering Science

Professors: Broadbent (chairman 225 ESC), Bryner, Goates, Hall, J. K. Nicholes.

Associate Professors: K. P. Anderson, Blackham, K. L. Nelson, H. W. Peterson, A. D. Swenson, Vernon.

Assistant Professors: B. Brown, Butler, Wing, Wiser.

Superintendent of Laboratories: Meibos.

The objectives of the Department of Chemistry and Chemical Engineering are as follows: (1) To be of service to other departments of the University by offering courses in general education for all students and additional fundamental background training for majors in physical and engineering sciences, biological and agricultural sciences, nursing, family living, pre-medicine, pre-dentistry, and other areas. (2) To provide sound, thorough training in Chemistry and Chemical Engineering for students choosing to major in these areas. (3) To contribute significantly to the sum of basic research in chemistry and chemical engineering being carried out in the universities of the world.

The Department of Chemistry offers four beginning courses in chemistry: Chemistry 1 for general education; Chemistry 2, 3, and 4, primarily for students in nursing, home economics, and general agriculture; Chemistry 7, 8, and 9, also for students in home economics and agriculture; and Chemistry 14, 15, and 16 for students who expect to major in the physical sciences and engineering, the biological sciences, medicine, and the teaching of science.

A major in Chemistry shall consist of a minimum of 63 hours credit, among which, credit in each of the following courses is required: Chemistry 14, 15, 16, 31 (or 21 and 22), 151, 152, 153, 161, 162, 163, 191, and 192. Suggested sequences to complete the requirement are Chemistry 181, 182, 183 or Chemistry 101, 111, 132, 193 plus three additional hours in Organic Chemistry (15 hrs. credit in 151, 152, 153 instead of 12 hrs.) or any sequence chosen from the Chemical Engineering list.

A major in Chemical Engineering must complete a minimum of 170 credits in the physical science group. Included in this total must be the following:

(1) Forty-seven credits in chemistry.

(2) Twenty-seven credits in the areas of engineering science or upper-division physics representing electrical fields, circuits and electronics, statics, dynamics and strength of materials.

(3) The following sequence of courses in Chemical Engineering: Ch. E. 114, 115, 116, 165, 166, 167, 171, 172, 173, 174, 175, 176, 177.

A major in Pre-medical and Pre-dental Chemistry shall consist of a minimum of 45 hrs. credit in courses selected from the following list: Chemistry 14, 15, 16, 31 (or 21 and 22), 151, 152, 153, 161, 162, 163.

The student who desires to teach chemistry but who majors in Education rather than in Chemistry should consult the lists of composite majors presented in the College of Education section of this college.

For **Entrance requirements into the College of Physical and Engineering Sciences**, see page 455 of this catalog.

SUGGESTED CURRICULUM FOR CHEMISTRY MAJOR

Freshman Year

	A.	W.	S.
Chem. 14, 15, 16, Principles of Chemistry	5	5	5
Math. 11, 12, 13, or 15, 16, 17	5	5	5
English 1, 2, 3, or 12, 13, Composition & Literature	3	3	3
Physical Education	1	1	1
Health 1, Personal Hygiene			1
Religion	2	2	2
AFROTC or Elective	2	2	2
Total Hours	18	18	19

Sophomore Year

	A.	W.	S.
Chem. 31, 132, Quantitative Analysis	5	5	
Chem. 111, Advanced Inorganic Chemistry			5
Math. 91, 92, 93, or 98, 99. Calculus	4	4	4
Physics 41, 42, 43, General Physics	5	5	5
Religion	2	2	2
AFROTC or Elective	2	2	2
Total Hours	18	18	18

Junior Year

	A.	W.	S.
Chem. 151, 152, 153, Organic Chemistry	5	5	5
Math. 111, 112, Definite Integrals, Diff. Equations	3	3	
Biological Science	5	3	
Humanities and Aesthetics			3
German 1, 2, 3	5	5	5
Religion		2	3
Elective			2
Total Hours	18	18	18

Senior Year

	A.	W.	S.
Chem. 161, 162, 163, Physical Chemistry	4	4	4
Chem. 191, 192, 193, Chem. Lit. and Scientific Writing	2	2	2
History 70		5	

Social Science	5		5
German 167, 168, 169	3	3	3
Religion	3	2	2
Elective	1	2	2
Total Hours	18	18	18

(The foregoing outline presumes that advantage will be taken of the opportunity to apply six hours of "double credit" in simultaneously meeting the requirement of both religion and humanities and aesthetics.)

SUGGESTED CURRICULUM FOR CHEMICAL ENGINEERING MAJOR

Freshman Year

(Similar to Chemistry Major)

	A	W	S
Chem. 14, 15, 16, Principles of Chemistry	5	5	5
*Math 11, 12, 13, Algebra, Trig., Analytical Geometry	5	5	5
English 1, 2, 3, Composition and Literature	3	3	3
Physical Education	1	1	1
Health 1, Personal Hygiene			1
M.E. 1, Engineering Orientation	1		
Religion	2	2	2
Total Hours	17	16	17

Sophomore Year

(Similar to Chemistry Major)

Chem. 31, 132, Quantitative Analysis		5	5
Math. 91, 92, 93, Calculus	4	4	4
Physics 41, 42, 43, General Physics	5	5	5
History 70	5		
Religion	2	2	2
Total Hours	16	16	16

Note: The first and second years are approximately common to all branches of engineering and all the physical sciences, except that Chemistry 31, and 132 will normally be taken in the second year, being a prerequisite to Chemistry 161.

Third Year

Ch. E. 114, 115, 116, Introduction to Chem. Eng.	2	2	2
Ch. E. 125, Fuels and Fuel Analysis			2
Chem. 161, 162, 163, Physical Chemistry	4	4	4
C. E. 10, 11, 12, Engineering Graphics	2	3	3
E. E. 101, 102, 103, Elements of Electrical Eng.	4	4	4
Group Electives		2	
Religion	2	2	2
Ch. E. 177, Engineering Materials	3		
Total Hours	17	17	17

Fourth Year

Ch. E. 165, 166, 167, Thermodynamics and Unit Operations	3	2	3
C. E. 101, 102, 103, Statics, Dynamics, and Strength	5	5	5
Chem. 151, 152, Organic Chemistry	4	4	
Chem. 191, Seminar in Chemical Literature and Scientific Writing	2		
Geology 91, Engineering Geology			3
Ch. E. 179, Chemical Processes			3
Group Electives		4	2
Religion	2	2	2
Total Hours	16	17	18

Fifth Year

Ch. E. 171, 172, 173, Unit Operations	3	3	3
Ch. E. 174, 175, 176, Unit Operations Laboratory	2	2	2
Ch. E. 196, Plant Design		2	
Ch. E. 200, Research	2	2	1
Chem. 111, Inorganic Chemistry (or restricted elective)			5
Group Electives	8	7	4
Total Hours	15	16	15

*Plane trigonometry credit earned in high school is sufficient to waive this requirement.

Lower Division Courses

PHYSICAL SCIENCE

1, 2, 3. **Physical Science.** Concepts of Physical Science. (3-3-3) A.W.S. (GER-PS) All three courses must be taken in sequence to receive credit which will meet the requirements for general education in the physical sciences. Emphasis will be devoted to a penetrating application of the methods of science to a relatively few basic topics than to a superficial survey of many. Blackham

CHEMISTRY

1. **Introductory General Chemistry.** (3) A.W.S. (GER-PS) Staff
For students other than science majors. Students who have had high school chemistry should register for Chemistry 14.

2. **Introductory Inorganic Chemistry.** (5) A. (GER-PS) Three lectures, two quizzes, and two two-hour laboratory periods per week. Primarily for nursing and family living majors. Staff

3. **Introductory Organic Chemistry.** (4) W. (†GER-PS) Three lectures, one quiz, and one two-hour laboratory period per week. Prerequisite: Chemistry 1, 2, or 7. Primarily for nursing and family living majors. Staff

4. **Introductory Biochemistry.** (3) S. Two lectures, one quiz, and one two-hour laboratory period per week. Prerequisite: Chemistry 3 or equivalent. Primarily for nursing and family living majors. Staff

7, 8. **General Inorganic Chemistry.** (5-5) A.W. (GER-PS) Three lectures, two quizzes, and two two-hour laboratory periods per week. Primarily for majors in agriculture and family living. Staff

9. **Elementary Organic Chemistry.** (5) S. Three lectures, two quizzes, and two two-hour laboratory periods per week. Prerequisite: Chemistry 8 or equivalent. Staff

14. **Principles of Chemistry.** (5) A.W. (†GER-PS) Three lectures two quizzes, and two two-hour laboratory periods per week. Prerequisites: two years high school mathematics and/or high school chemistry or physics or Chemistry 1. Required of chemistry, engineering, physical science, and biological science majors, and pre-medical and pre-dental students. Staff

15. **Principles of Chemistry.** (5) W.S. (†GER-PS) Three lectures, two quizzes, and two two-hour laboratory periods per week. Prerequisite: Chemistry 14. Staff

16. **Principles of Chemistry and Qualitative Inorganic Analysis.** (5) S. Two lectures, one quiz, and two three-hour laboratory periods per week. Prerequisite: Chemistry 15. Staff

21, 22. **Quantitative Analysis.** (3-3) A.W. Two lectures and two two-hour laboratory periods per week. Prerequisites: Chemistry 9 or 16. Butler, Wing

Principles and practice of quantitative analysis.

23. **Quantitative Analysis.** (4) S. Three lectures and two two-hour laboratory periods per week. Prerequisites: Chemistry 2 and 3 or 7 and 8. Staff

Primarily for students interested in biological and food materials.

31. **Quantitative Analysis.** (5) A.W. Three lectures, two three-hour laboratory periods per week. Prerequisites: Chemistry 16 and College Algebra. For science and engineering majors. Butler, Wing

Gravimetric and volumetric analysis.

Upper Division Courses

101. **Methods of Glass Manipulation.** (1) A.W.S. Two two-hour laboratory periods per week. Bryner

Exercises in glass working. Registration by permission of instructor.

110. **Introductory Physiological Chemistry.** (5) A. Three lectures and two two-hour laboratory periods per week. Prerequisite: Chemistry 3 or 9. Vernon

111. Inorganic Chemistry. (5) S. Five lectures. Prerequisite: Chemistry 31. Staff

114, 115, 116. Introduction to Chemical Engineering. (2-2-2) A.W.S. Two lectures per week. Prerequisite: Physics 92. Brown

The stoichiometry of industrial chemical processes; study of material and energy balances.

125. Fuels and Fuel Analysis. (2) S. One lecture, one three-hour laboratory period per week. Wing

A study of the important fuels used in industry. Experimental methods in analysis of fuels.

132. Quantitative Analysis. (5) W.S. Two lectures, one quiz, three three-hour laboratory periods per week. Prerequisite: Chemistry 22 or 31. Butler, Wing

Advanced quantitative analysis.

136. Fire Assaying. (3) S. (Not given this year) Two lectures and two two-hour Laboratory periods per week. Prerequisite: Chemistry 21 or 31. Wing

Assays of gold, silver, copper, and lead ores.

151, 152, 153. Organic Chemistry. (4-5, 4-5, 4-5) A.W.S. Three lectures and one or two three-hour laboratory periods per week. Prerequisites: Chemistry 16, 22 or 31. Blackham

161, 162, 163. Physical Chemistry. (4-4-4) A.W.S. Three lectures and one three-hour laboratory period per week. Prerequisites: Physics 43, Calculus, and Chemistry 22 or 31. Bryner

165, 166, 167. Chemical Engineering Thermodynamics and Unit Operations. (3-2-3) A.W.S. Two or three lectures per week. Prerequisite: Chemical Engineering 114 or Chemistry 161. Brown

Thermodynamics, fluid flow, heat transfer and evaporation.

171, 172, 173. Chemical Engineering Unit Operations. (3-3-3) A.W.S. Three one-hour lecture-recitation periods per week. Prerequisite: Chemical Engineering 165 Wiser

A study of the unit operations of chemical engineering which includes fluid flow, filtration, heat transfer, sedimentation, evaporation, distillation, and drying.

174, 175, 176. Chemical Engineering Unit Operations Laboratory. (2-2-2) A.W.S. One four-hour laboratory per week. Wiser

177, 178. Engineering Materials. (3-3) A.W. Two one-hour lecture-recitation periods per week. Brown

A study of the chemistry and applications of metallic and non-metallic materials in engineering.

179. Chemical Engineering Process Principles. (3) S. Three one-hour lecture-recitation periods per week. Brown

A study of industrial chemical processes.

181, 182, 183. Biochemistry. (5-5-5) A.W.S. Three lectures and two three-hour laboratory periods per week. Prerequisites: Chemistry 22 or 31, 153. Swensen

A general treatment of the chemistry of substances and processes of biological significance.

191, 192, 193. Chemical Literature and Scientific Writing. (2-2-2) A.W.S. One lecture period and one period in scientific library per week. Open to advanced undergraduates and recommended for senior chemistry and chemical engineering majors. Broadbent

196. Engineering Principles of Chemical Plant Design. (2) W. Two two-hour lecture-recitation periods per week. Brown

197. Special Problems. Time and credit to be arranged. Registration by permission. Staff

200. Chemical Engineering Undergraduate Thesis. Time and credit to be arranged. Registration by permission. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

211. Systematic Inorganic Chemistry. (3) A. Peterson

212. Theoretical Inorganic Chemistry. (3) W. Nelson

213. Inorganic Synthesis. (3) S. Peterson

221. Theory of Quantitative Analysis. (3) S. Anderson, Butler

222. Microchemical Analysis. (1-3) A.W.S. Wing

237. Instrumental Analysis. (2-3) S. Goates

251. Qualitative Organic Analysis. (3-4) A. Broadbent, Nelson

252, 253. Advanced Organic Chemistry. (3-3) W.S. Broadbent, Nelson

254. Organic Synthesis. (2-3) W. Broadbent

261, 262. Chemical Thermodynamics. (4-4) A.W. Goates

264. Radiochemistry. (3) S. Anderson

267. Atomic and Molecular Structure. (3) A. Blackham

281, 282. Advanced Biochemistry. (3-3) A.W.	Swenson, Vernon
283. Enzyme Chemistry. (3-5) S.	Vernon
290. History of Chemistry. (3) S.	Nicholes
297. Research.	Staff
300. Thesis for the Master's Degree.	Staff

Church History

(See courses in Religion.)

Civil Engineering Science

(See courses in Engineering Sciences.)

Clothing and Textiles

Assistant Professor: M. S. Potter (chairman, SFC).
Instructors: Jorgensen, Domgaard, E. L. Gardner.

The Department of Clothing and Textiles aims to help the student understand clothing as it relates to personal needs and to the needs of family members. Considerations are given to the satisfaction of desires to express creative abilities; the understanding of fabrics, their selection, use and care; economy; and the comfort and health of the body. The curriculum offers experience in clothing selection, buying, design, and construction; the identification and quality of textiles; and an appreciation for the history of costume and textiles.

Opportunities in the field of clothing and textiles without advanced study include work with fabric or pattern companies, consumer education, dressmaking, and teaching. Advanced study is usually necessary for positions in fashion merchandising, display, promotion and personnel work in retail stores, designing, textile testing, or design and research.

For minors in Clothing and Textiles, a total of at least 20 credit hours in the department is required. A minimum of one course in at least 3 of the 4 areas listed is suggested.

Construction

Course Number	Credits
5	2
15	3
25	3
135	3
145	4
175	2
195	

Design and Selection

Course Number	Credits
10	2
20	1
150	3
155	3

Textiles

Course Number	Credits
60	3
160	2
180	2
194	

Economics and History

Course Number	Credits
130	3
140	3
170	2
172	2

For majors in Clothing & Textiles, a minimum of 32 credit hours in the department is required, including a minimum of 5 hours in each of the four areas. A special problem (CT 194 or 195 is expected). For graduates from the College of Family Living, these hours must be combined with enough credits in the College to total 60 hours. Included shall be:

	Credit Hours
Economics & Management of the Home	3
Food & Nutrition	4
Housing & Design	3
Human Development & Family Relationships	6
Total Hours	16

Suggested Program for Majors

Freshman Year

	Credit Hours
Religion	6
English (Determined by placement test)	9
Physical Education and Health	4
Chemistry 2 & 3 (Inorganic and Organic)	9
Psychology 11 (General)	5
Art 10 (Theory and Practice of Design)	2
Clothing and Textiles	8
10 Selection and Care	
15 Dress Construction	
25 Design and Construction	
Electives	5

Sophomore Year

Religion	6
Physics	3
Bacteriology 21 (General)	4
Zoology 48 (Elementary Human Physiology)	5
Economics 1 (Principles & Problems)	5
Food & Nutrition	4-8
10 (Introduction to Food & Nutrition)	
40 (Menu Planning & Meal Service)	
Housing & Design	2-3
20 (Weaving)	
or 145 (Household Equipment)	
or 160 (Home Furnishings)	
Human Development & Family Relationships	3-4
40 (Child Development I)	
41 (Observation in the Human Development Laboratories)	
Clothing & Textiles 60 (Textiles)	3
Electives	7-13

Junior Year

Religion	6
English (Literature)	3
History 80 (American Heritage)	5
Art	2
Econ. & Mgt. of Home 130 (Home Management)	3

Human Development & Family Relationships 101 Experience with Children or 160 Achieving Success in Marriage or 161 Family Relationships	3
Clothing & Textiles (Courses toward major)	10
Electives	16

Senior Year

Religion	6
English (Literature)	3
Humanities & Aesthetics (Art, music, speech)	6
Homemaking Education 120, 121 (Basic Classroom Procedures)	6
Economics & Mgt. of Home 170 (Homemaking Apartment)	4
Clothing & Textiles (Courses toward major)	11
Electives	11-13

Those interested in textile design may complete a major in Clothing and Textiles with a minor in art. The following courses are recommended: Art 11, 12, 21, 23, 104, 114, 150, 152, 162, 166.

Those interested in costume design may complete a major in clothing with a minor in art. The following courses are recommended: Art 11, 12, 22, either 23 or 104, 114, 122, 143, 152, 162, 166.

Those interested in fashion merchandising may complete a major in Clothing and Textiles with a minor in marketing. The following courses are required: Marketing 107, 108, 159, plus 5 hours selected from among Marketing 151, 158, 170, and 171.

Majors in Clothing and Textiles desiring to teach in secondary schools should complete a double major in Homemaking Education and Clothing and Textiles. (See requirements for Homemaking Education.) This plan requires at least two additional quarters, or 33-36 credit hours.

Courses in other departments that might be of interest to students in Clothing & Textiles are:

Art: 50, Print Making; 59, Ceramics; 63, Crafts; 104, Art History and Appreciation; 164, Plastics; 166, Metal Work and Jewelry.

Housing and Design: 20, Weaving; 160, Home Furnishings.

Industrial Arts: 28/128, Upholstery; 63, Crafts.

Many of the following courses are planned to be of value to both men and women.

(For more information see section in College of Family Living.)

Lower Division Courses

5. **Elementary Clothing Construction.** (2) A.W.S. Two two-hour laboratory periods. Service course for students with little or no experience in sewing. No credit given toward a major in Clothing and Textiles. Domgaard

Pattern selection and construction of garments such as blouses, skirts, jumpers, cotton dresses, housecoats, and pajamas.

10. **Selection and Care.** (2) A.W.S. Two lecture periods, one one-hour lab. Jorgensen

Self-improvement and self-expression approached through a study of the elements and principles of design as applied to the selection of clothing and accessories; the planning and care of the wardrobe; and personal analysis, with attention paid to grooming, poise and personality. The factors of cost are considered throughout.

15. **Dress Construction.** (3) A.W.S. Three two-hour laboratory periods. Staff

Factors that influence the choice of pattern and material for dresses—including cost. The construction of a tailored dress.

20. **Clothing Selection and Care.** (1) A.W. Two lectures and one two-hour laboratory period for one-half of the quarter. To be elected with Food and Nutrition 20. Designed for men students; especially helpful for prospective missionaries. Jorgensen, Potter

Selection, purchase, and care of men's apparel as related to the individual.

25. **Design and Construction.** (3) A.W.S. Three two-hour laboratory periods. Prerequisite: Clothing and Textiles 15. Staff

Introduction to pattern analysis; the modification of commercial patterns. New techniques, design problems, and dressmaking skills applied to the construction of afternoon and evening dresses.

60. **Textiles.** (3) A.W.S. Potter

Natural and synthetic fibers; their yarns, weaves, dyes and finishes. Properties and uses of textiles and their importance to the consumer.

130. **History of Costume.** (3) A. Jorgensen

The social, economic, and political influence on dress and fabrics. The study of costume as an expression of the life of the people and as a basis for interpreting modern fashions.

135. **Family Clothing.** (3) A.S. Three two-hour laboratory periods. Prerequisites: Clothing and Textiles 25 and 60. Jorgensen

Problems involving the selection, care, and construction of clothing for the family; cost discussed. Construction and remodeling.

140. Historic Textiles. (3) (Not given this year.) Prerequisite: Clothing and Textiles 60. Gardner, Potter

The history and development of textile fabrics, including weaves and patterns; hand-made lace, tapestry, and oriental rugs.

145. Tailoring. (4) A.S. Five two-hour laboratory periods, and two hours to be arranged. Prerequisites: Clothing and Textiles 25 and 60; Clothing and Textiles 10 recommended. Domgaard, Gardner

Custom tailoring techniques applied to the construction of coats and suits.

150. Costume Design. (3) W. Daily. Prerequisites: Art 10 or Clothing and Textiles 10 and Clothing and Textiles 15; Clothing and Textiles 25 and 130 recommended. Gardner

By use of various media for inspiration, opportunity for creative experience is given in applying the principles of line, texture, and color to the design of dress.

155. Draping and Flat Pattern Design. (3) S. Three two-hour laboratory periods. Prerequisites: Clothing and Textiles 25 and 60; Clothing and Textiles 130 and 150 recommended. Gardner

Creative design, and fitting by draping on an individualized dress form.

160. Advanced Textiles. (2) Two two-hour class periods. One lecture, three laboratory hours. Prerequisites: Clothing and Textiles 60, Chemistry 2 and 3. Potter.

Testing the physical and chemical properties of fabrics to determine their use and care. Recent developments in fibers and finishes.

170. Economics of Clothing and Household Textiles. (2) W.S. Prerequisite: Economics 1. Open to all students. Potter

The determining factors in the selection and buying of family clothing and of fabrics used in the home, as linens, rugs, draperies, and upholstery.

172. Fashion Industry. (2) W. Gardner

How the fashion world and garment industry function; designers, fashion cycles, trade organizations, garment manufacturing and production; the history and development of the garment industry.

175. Construction Techniques. (2) A.W. Two three-hour periods. Prerequisite: Clothing and Textiles 25. Staff

Comprehensive course in sewing techniques. Preparation of illustrative material for aid in teaching.

180. Readings. (2) S. Restricted to students who have completed at least 17 hours of Clothing and Textiles. Staff

Reports and discussions on current literature in Clothing and Textiles.

194. Special Problems in Textiles. (TBA) A.W.S. Prerequisite: permission of the instructor and the chairman of the department. Restricted to students who have completed Clothing and Textiles 180 or its equivalent. Staff

Independent study of a special problem in textiles under the direction of an instructor.

195. Special Problems in Clothing Construction. (TBA) A.W.S. Prerequisite: permission of the instructor and the chairman of the department. Restricted to students who have completed Clothing and Textiles 180 or its equivalent. Staff

Independent study of a special problem in clothing under the direction of an instructor.

Comparative Literature

(See courses in English.)

Dairy Husbandry

(See courses in Animal Husbandry.)

Dramatic Arts

(See courses in Speech and Dramatic Arts.)

Drawing

(See courses in Industrial Arts and Drawing.)

Economics

Professors: E. Miller (acting chairman, 129N), Boyle, H. R. Clark, Edwards, Pond.

Associate Professors: Corbridge, Nelson.

Instructor: Davies.

In order that all students who plan to be graduated with a major in one of the five departments of Accounting, Business Management, Economics, Finance and Banking, and Marketing may have a common background of basic information and tools to facilitate their advanced work, they are required to take the core courses listed below. These courses form a basic training normally to be completed during the first two years of college work and before the student is admitted to a major department. Students in the College of Commerce will be counseled during this program by members in the College of Commerce staff selected by the office of the Dean of the College of Commerce.

Accounting 1 and 2	10 hours
Accounting 35	5 hours
Economics 1	5 hours
Economics 75	5 hours
Psychology 11 or substitute approved by counselor	5 hours

Students majoring in economics are required to take Economics 74, which together with Political Science 10 fills the American History and Government requirement and should be taken in place of History 70.

In addition to the above courses, students majoring in this department are required to take Economics 145, 153, 246, 249; Finance and Banking 154; Marketing 107. Recommended: Economics 161, 167; Finance and Banking 151, 254, 268; Ind. Management 130.

Economics is one of the subjects comprising the composite majors in business and in social science designed for prospective teachers.

Lower Division Courses

1. **Economic Principles and Problems.** (5) A.W.S. (GER-SS) Staff

Basic general education course in economics to prepare students for citizenship by training in fundamental economic principles and developing an understanding of the most important aspects of some of the critical economic problems facing America and the world today.

74. **Economic and Financial History of the United States.** (5) A.W.S. Staff

A study of the origins and development of agriculture, commerce, industry, finance, labor, international trade, and public policies in the United States as they affect our present economic structure, forces, and activities.

75. Business and Economic Statistics. (5) A.W.S. Staff
Introduction to the sources, the methods of processing, and the presentation of statistical data. Experience in dealing with raw statistical data, machine operation, chart and graph preparation, and statistical report writing will be given in the laboratory sections.

Upper Division Courses

145. Intermediate Economic Theory. (5) A.W.S. Prerequisite: Economics 1. Staff
Intensive analysis of production principles and price theory.

151. Economics of Consumption. (3) A.W. Boyle
(See Marketing 151.)

153. Money and Banking. (4) A.S. Clark
(See Finance and Banking 153.)

156. Transportation and Traffic Management. (5) A. Davies
The growth and development of modern methods of transportation, problems of rate determination, the development of public regulation, current problems, problems of traffic management for transportation companies and industrial and commercial organizations.

161. Labor Problems and Labor Relations. (3) A. (GER-SS) Davies
Rise and growth of labor organizations resulting from modern industrialization, public regulation of the labor movement, development and organization of the wage system, and problems of labor-management relationships.

167. Government Finance. (5) W. (GER-SS) Staff
The financing of federal, state, and local government. Includes a study of expenditures; principles and practices of budgeting; governmental revenues, with emphasis on problems of taxation and public debt. (See Finance and Banking 167.)

176. Government and Business. (3) A. Staff
General survey of governmental activities affecting business. The political, economic, and legal bases of governmental regulation and the probably limits and difficulties in applying such regulation to our economic system.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

246. Advanced Economic Theory. (5) S. Prerequisite: Economics 145. Staff

249. History of Economic Thought. (5) W. Davies

262. Collective Bargaining and Industrial Relations. (3) W. Prerequisite: Economics 161. Davies

263. Labor Law. (3) S. Prerequisite: Economics 161. Davies

268. Economics of Finance. (5) W. Edwards

278. International Trade and Finance. (3) S. Corbridge

285, 286, 287. Seminar. (1-2, 1-2, 1-2) A.W.S. Staff

296, 297, 298. Research (Arr.) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Economics, Agricultural

(See courses in Agricultural Economics.)

Economics and Management of the Home

Professor: I. Barlow.

Instructor: Hinman (chairman, SFC).

The courses in the Department of Economics and Management of the Home provide an opportunity to study the management of family resources in terms of the goals of all members of the family. The student is helped to understand that choices in regard to the uses of material goods, time, energy, money, abilities, and skills are made primarily on the basis of family relationships and the optimum development of the individual.

A minor is offered in the department. A major may be elected in conjunction with the department of Housing and Design or other related departments.

For a combined major in Economics and Management of the Home and Housing and Design a total of 32 credit hours in the two departments is required. For graduation from the College of Family Living these hours must be combined with enough credits in the College to total 60 hours. Included shall be:

Clothing and Textiles	4
Food and Nutrition	4
Human Development and Family Relations	4

Suggested Program for a Combined Major in Economics and Management of the Home and Housing and Design

Freshman Year

	Credit Hours
Religion	6
English (Determined by placement test)	9
Physical Education and Health	4
Physics	3
Chemistry 2, 3 (Inorganic, Organic) (Minimum total 9 hours)	9
Bacteriology 21 (General)	4
Psychology 11 (General)	5
Art 10 (Theory and Practice of Design)	2
Food and Nutrition 10 (Introductory)	4
Housing and Design 20 (Weaving)	2

Sophomore Year

Religion	6
Zoology 48 (Elementary Human Physiology)	5
Economics 1 (Principles and Problems)	5

Humanities & Aesthetics (Art, music, speech)	4-7
Clothing & Textiles	2-3
5 Elementary Clothing Construction	
or 10 Selection and Care	
or 15 Dress Construction	
Food & Nutrition	4-8
110 (Food Preparation)	
or 120 (Introduction to Experimental Cookery)	
Human Development & Family Relationships	4-8
40 Child Development I	
41 Observation in Human Development Laboratory	
80 Family Health & Home Nursing	
85 Foundation for Marriage	
Economics and Mgt. of Home 50 (Simplification in	
50 (Simplification in Household Tasks)	2
65 (Consumers in the Market	3
Housing & Design 145 (Household Equipment)	3
Electives (as Horticulture and Ind. Art)	2-5

Junior Year

Religion	6
English (Literature)	3
History 80 (American Heritage)	5
Art 114-117 (Interior Decoration)	9
Clothing & Textiles	6
60 Textiles	
135 Family Clothing	
Food & Nutrition 140 (Menu Planning & Meal Service)	4
Human Development & Family Relationships	3-6
160 Achieving Success in Marriage	
161 Family Relationships	
Economics & Mgt. of Home	
125 (Family Finance)	3
130 (Home Management)	3
Housing & Design 160 (Home Furnishings)	2
Electives (as Finance & Banking, Speech)	6-9

Senior Year

Religion	6
English (Literature)	3
Home Education 123 (Demonstration Experiences)	2
Human Development and Family Relationships	6-8
101 Experience with Children	
120 Development and Adjustment during the Middle and Later Years	
171 Planning for Family & Neighborhood Recreation	
Economics & Mgt. of Home 170 (Homemaking Apartments)	4
180 (Readings in Econ. & Mgt.)	2
190 (Problems in Mgt. of Home)	3
195 (Problems in Economics of Home)	3

Housing & Design 175 (Housing)	3
Electives (as optional courses not elected previous years, Adult Education, Journalism, Marketing)	15-20

Courses in other departments that may be of interest to students in economics and management of the home are:

Economics 1; Marketing 151; Agricultural Economics 23; Finance and Banking 155; Clothing and Textiles 170; Food and Nutrition 40, 140; Housing and Design, all courses.

Most of the following courses are planned to be of value to both men and women.

Lower Division Courses

30. **Management for Effective Living.** (3) A.W.S. Barlow
The goals and values of homemaking as related to group living and to such activities as meal planning, shopping, budgeting, cleaning, recreation, and the use of leisure.

50. **Simplification in Household Tasks.** (2) (Not given this year.)
Effective planning of home work centers. Ways in which the homemaker may lighten her work within the home.

65. **Consumers in the Market.** (3) W.S. Barlow, Hinman
Aids toward the intelligent buying of commodities. The effect on the consumer of present market practices. Consumer protection, including the labeling of merchandise. Comparison of quality in various household items.

Upper Division Courses

125. **Family Finance.** (3) A.W. Prerequisite: Economics 1. Barlow
Economic problems of most direct concern to the family of today. The sources and adequacy of family income, its apportionment and expenditure in terms of family needs.

130. **Home Management.** (3) A.S. Prerequisites: Human Development and Family Relationships 115, and Food and Nutrition 40 or 140. Hinman
The place of management in achieving personal and family goals from the time of marriage to retirement. Opportunities for children to share and take responsibility. Management related to specific resources, as time, energy, money, material goods, skills, abilities and interests.

170. **Homemaking Apartment.** (4) A.W.S. Prerequisites: Economics and Management of the Home 130 and Food and Nutrition 40 or 140. Arrangements are to be made in advance for living in the apartment. Hinman
Students live in the homemaking apartment one-half of the quarter, (block), for experience in group living and management at various cost levels. No rent is paid. Food and incidentals average $35.00 to $40.00 for the five-week period ($5.00* payable at registration the quarter before residence; $35.00 payable at the beginning of residence.)

180. Readings in Economics and Management of the Home. (2) (Not given this year.) Prerequisites: 16 hours of Economics and Economics and Management of the Home. Staff

190. Problems in Management of the Home. (TBA) (Not given this year.) Prerequisites: 18 hours of Economics, and Economics and Management of the Home. By permission of the instructor and the dean. Staff

Independent study of a special problem in Management of the Home under direction of an instructor.

195. Problems in Economics of the Home. (TBA) (Not given this year.) Prerequisite: 18 hours of Economics, and Economics and Management of the Home. By permission of the instructor and the dean. Staff

Independent study of a special problem in Economics of the Home under direction of an instructor.

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* Not returnable.

Education: Instruction

Professors: Boyle (emeritus), H. Peterson (emeritus), C. J. Hart, Holbrook, E. M. Jenson.

Associate Professors: Browne, Andrus, Belnap, Campbell.

Assistant Professors: Hammond (emeritus), Alder, Babcock, Barrett, Bauer, Berryessa, Callahan (chairman, 147 McK), Candland, Gunn, Knight, Krider, F. Madsen, Maeser, Tyndall, W. B. Wilson.

Instructors: McAllister (emeritus), L. Anderson, Bangerter, Brace, Chandler, Cowan, Flandro, R. Hansen, M. S. Jacobs, G. D. Jensen, McIntosh, V. B. Poulson, Purdy, Sorenson, Swapp, Thorne.

The offerings in this department are intended to assist teachers in the development of the skills involved in the act of instruction, whether it be in or out of the classroom, and at any level or in any special area of education. Courses sponsored exclusively by this department are usually limited to those in which methodology of teaching or problems in organizing materials for teaching are the dominant content. Courses which give considerable attention to subject matter as such are usually offered by the subject matter departments in the University, on a basis of joint approval of instructors and of course outlines.

The offerings in instruction are presented under the following divisions: elementary, secondary, college, adult, industrial, and religious. There is also a general division under which are listed courses of service to all the other divisions.

Elementary Instruction

Students majoring in elementary instruction, and those who wish to obtain an elementary teaching certificate, are required to take the following courses which are listed in recommended sequence:

Sophomore Year

	Hours
Ed. Inst. 106 (Art for Elementary Teachers)	3
Ed. Inst. 170 (Health Education for Teachers)	3
Ed. Inst. 107 (Music for Elementary Teachers)	3
P.E. 120 (Physical Education for Primary Grade Teachers) or P.E. 121 (Physical Education for Intermediate Grade Teachers)	2

Junior Year

Ed. R&S 101 (Development and Learning (Directed Observation TBA)	6

Ed. Inst. 110 (Children's Literature)	3
Ed. Inst. 115 (Participation in Basic Classroom Procedures (Three hours seminar, four hours participation weekly.)	3
Ed. Inst. 116 (Curriculum and Methods in Social Studies and Science) (Directed Observation TBA)	4

Senior Year

Ed. Inst 117 (Curriculum and Methods in Language Arts and Arithmetic. To be taken concurently with Ed. Inst. 118)	4
Ed. Inst. 118 (Student Teaching)	6

Senior Year quarter block (must be followed as designated):

First Five Weeks

Ed. Inst. 119 (Full day, field student teaching.

Second Five Weeks

(Six class hours per week)

Ed. Inst. 185 (Principles of Teaching)	3
Ed. Adm. 100 (The State, the School, and the Teacher)	3
Ed. V & P (Educational Values)	3

Alternate Block Plan (excepting Spring Quarter)

First Five Weeks

Ed. Inst. 185 (Principles of Teaching)	3
Ed. Adm. 100 (The State, the School and the Teacher)	3
Ed. V & P 100 (Educational Values)	3

Second Five Weeks

Ed. Inst. 119 (Full-day field student teaching)	6

Recommended Electives

In addition to the above required courses, the following classes are recommended as electives:

Alternative P.E. 120 or 121 (Physical Education for Teachers	2
Ed. Inst. 175 (Audio-Visual Aids)	3
Ed. Inst. 104, 105 (Arts and Crafts)	2
Speech 171 (Speech for Elementary Schools)	3
Ed. Inst. 102 (Early Childhood Education)	3
Ed. R & S 145 (Guidance in the Public Schools)	3

To develop more adequate competency in teaching elementary school music, it is strongly urged that all majors who do not play the piano take:

General Music 40 (Group Piano)	2

Also recommended for all elementary instruction majors:

Music Applied 37, 38, or 39 (Group Vocal)	1
Musicology 157 (Ch. Hist. 157) (Baton Techniques)	2

The Minor and Related Field

A minor of twenty hours, and an additional related ten hours essential to elementary teachers, are required of students who major in elementary instruction. Electives for these requirements may be selected from other departments from recommendations of the department chairmen under the direction of an adviser in elementary instruction.

Upper Division Courses

102. **Early Childhood Education.** (3) S. Campbell, Candland, Staff
Principal attention given to kindergarten and first grade. Formerly Elementary Education 192.

104. **Arts and Crafts for Elementary Teachers.** (2) A.W.S. Alder Andrus, Staff
A practical course in handicrafts for teachers of children in the elementary school. Formerly Elementary Education 156.

105. **Arts and Crafts for Early Childhood.** (2) A.W.S. Alder, Staff
A practical course in handicrafts for teachers in kindergarten and first grade. Formerly Elementary Education 159.

106. **Art for Elementary School Teachers.** (3) A.W.S. Jenson, Andrus, Wilson, Staff
Materials and procedures for stimulating and guiding child development in the various phases of art in the elementary school. Attention will be given to the relationship of art to the entire school program. Formerly Elementary Education 165.

107. **Music for Elementary Teachers.** (3) A.W.S. Prerequisite: General Music 2 or the equivalent. Madsen
Materials and procedures for stimulating and guiding child development in the various phases of music in the elementary school. Attention will be given to the relationship of music to the rest of the school program. (See Music Education 190.) Formerly Elementary Education 190.

108. **Manuscript Writing for Elementary Teachers.** (2) S. Candland, Daines, Staff
Manuscript writing for children in the elementary school. Formerly Elementary Education 169.

109. **Directed Observation in Elementary Instruction.** (3) S. Staff
Admission by application to office of Elementary Instruction. Designed for secondary students who wish to obtain an elementary certificate, and experienced teachers. Observation of classroom procedures accompanied by regular conferences designed to develop skill in planning, interpreting, and evaluating teaching techniques in basic subjects on on all levels of the elementary school.

110. **Children's Literature.** (3) A.W.S. Hammond, Thorne
Evaluation of children's books, past and present, that meet children's needs and have lasting significance. A survey of radio and television programs and comics and their effects upon children and children's reading habits. Formerly Elementary Education 168.

113. **Selection and Use of Library Materials for the Elementary School.** (3) W. Summer. Staff
(See Library Science 165.)

114. Overview of Elementary Instruction. (3-5) W.S. Maeser (Not for Elementary Instruction majors.)

An overview of curriculum and methods for the elementary schools. Designed for secondary teachers who wish to obtain an elementary teacher's certificate, or as a refresher course for in-service teachers.

115. Basic Classroom Procedures and Participation. (3) A.W.S. Prerequisite: Ed. R&S 101 and 9 hours selected work in Ed. Instruction. Berryessa, Campbell, Candland, Daines, Krider, Maeser, Young

Organizing the classroom, pupil accounting, grouping, the daily program, location and use of teaching materials. Students will be assigned as assistants to teachers in the Laboratory School and/or the public schools for four hours per week.

116. The Curriculum and Methods of Elementary School Studies and Science. (4) A.W.S. Prerequisite: Ed. R&S 101, and Ed. Inst. 115. Berryessa, Campbell, Candland, Daines, Krider, Maeser, Young

An integrated approach to developing concepts of Social Studies, Science, and Health in the elementary school, with special emphasis upon curriculum content, methodology, community resources, and uses of materials. (Directed observation, to be arranged.)

117. The Curriculum and Methods of Elementary School Language Arts and Arithmetic (4) A.W.S. Prerequisite: Ed. Inst. 115, 116. Berryessa, Campbell, Candland, Daines, Krider, Maeser, Young

Covers the areas of language arts and arithmetic in the elementary school. To be taken concurrently with Ed. Inst. 118.

118. Elementary Student Teaching. (6) A.W.S. Prerequisite: 15 credit hours of professional work, including Ed. Inst. 115, 116. To be taken concurrently with Ed. Inst. 117. Berryessa, Campbell, Candland, Daines, Krider, Maeser, Young

A laboratory course affording opportunity for the student to experience teaching under the direction of a selected classroom teacher. Only seniors and third quarter juniors, or students enrolled in the Graduate School, may be admitted to elementary student teaching. A full-half day must be reserved for this class. A fee of $10.00 is charged.

119. Field Student Teaching. (6) A.W.S. Prerequisite: Ed. Inst. 115, 116, 117, 118. Berryessa, Campbell, Candland, Daines, Krider, Maeser, Young

Students will spend a five week block in a full-day teaching situation in the public schools. This may be either the the first half or the last half of the fall or winter quarters, or the first half of the spring quarter. (The remaining half-quarter will be spent in the post-student teaching classes as listed in the recommended sequence.) A fee of $10 will be charged.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. Curriculum Building in the Elementary School. (3) W. Maeser, Campbell, Candland, Staff

202. Advanced Study in Early Childhood Education. (3) (Arr.) Campbell, Candland

204. Arts and Crafts for Elementary Teachers. (2) (Arr.) Andrus

205. Creative Arts in the Elementary School. (2) A. Andrus

211. Language Arts in the Elementary School .(3) W. Campbell Candland, Maeser, Staff

212. Reading in the Elementary School. (3) W. Candland, Maeser, Staff

213. Science in the Elementary School. (3) S. Babcock, Berryessa, Staff

214. Arithmetic in the Elementary School. (3) W. Babcock, Maeser

215. Social Studies in the Elementary School. (5) A. Campbell, Candland, Maeser

SECONDARY INSTRUCTION

The College of Education offers professional courses leading to secondary certification. Students desiring certification in this area must complete course requirements in the areas of: (a) general education, (b) professional education, and (c) subject matter specialization.

I. Examine pages 87 through 96 for an explanation of general education requirements.

II. Professional preparation consisting of a minimum of 33 hours is required as follows:

Courses Prerequisite to Secondary Sequence	Hours
Development and Learning (ERS 101)	6
Secondary Sequence (Must be taken in order listed)	
Basic Classroom Procedures in Secondary Instruction (120)	4
Secondary Curriculum and Participation (138)	4
Secondary Student Teaching (139)	7

Note: All except those whose major departments provide special sections, should enroll in the course sequence, Instruction 120, 138, and 139. (See Physical Education 120, 138, and 139, Holbrook and Bangerter; Music Education 120, 138, and 139, Madsen; Speech Education 120, 138, and 139, Clinger; Art Education 120, 138, and 139, Gunn; Homemaking Education 120, 138, and 139, Poulson; Business Education 120, 138, and 139, Christensen.) Fees: A special fee of $20.00 (prorated over the two quarters in which the student is registered for 138 and 139, at $10.00 per quarter) is charged.

Post Student Teaching Courses (May be taken concurrently or in any order)

	Hours
The State, the School, and the Teacher (Ed. Adm. 100)	3
Educational Values (Ed. Values and Programs 100)	3
Principles of Teaching (Ed. Instruction 185)	3

The following course may be taken at any time in the sequence of professional education courses:

Health Education for Teachers (Ed. Instruction 170)	3

NOTE: The professional education sequence should be commenced not later than the last quarter of the sophomore year or the first quarter of the junior year.

III. Special academic preparation consisting of a minimum of 60 hours may be achieved through: (a) the composite major or (b) the teaching major and the teaching minor.

A. See page 429 for a detailed explanation of the composite major.

B. See page 435 for a detailed explanation of the composite major and the teaching minor.

Upper Division Courses

120. Basic Classroom Procedures. (4) A.W.S. Prerequisite: ERS 103 and 100; or 101. Lectures, demonstrations, and participation in a high school in non-instructional activities. Callahan, Bauer, Flandro, Staff

A basic course concerned with procedures, techniques and materials which give experiences in providing effective learning activities for secondary school students.

127. Driver Education and Training for High School Teachers. (2) S. (See Physical Education 172.) Bangerter

Two periods each week. Special fee. This course is designed to qualify high school teachers as instructors in driver education and behind-the-wheel training. Formerly Education 170.

132. Selection and Use of Library Materials for the Secondary School. (3) S. Summer. Staff

(See Library Science 167.)

133. Introduction to Bibliography. (3) S. Summer. Staff

(See Library Science 170.)

138. Curriculum and Methods. (4) A.W.S. Prerequisite: Instruction 120. Callahan, Bauer, Flandro, Staff
Lectures, observation and limited participation in instructional activities.

Concerned with the development of techniques of providing continuous, well-organized learning experiences for secondary school pupils. Emphasis will be placed on materials and procedures applicable in the student's area of specialization.
(A fee of $10.00 is charged.)

139. Secondary Student Teaching. (7) A.W.S. Prerequisites: Instruction 138 and completion of two-thirds of courses required for teaching major and minor or composite major. (A fee of $10.00 is charged.) Callahan, Bauer, Flandro, Staff

Requirement for this course may be met by following either Plan A or Plan B as indicated below. Determination of which plan is to be followed must be made in consultation with an advisor from the Secondary Education Group.

Plan A: Supervised teaching in a public secondary school for a full quarter on a half-day basis. Close contact with faculty and students, participation in co-curricular activities, and much responsible teaching are expected. Student teachers will participate in weekly seminars and periodic conferences with supervisors. The nature of this option dictates that students must limit their total load to 15 hours.

Plan B: A full day of off-campus student teaching for a period of five weeks to be followed by five-weeks of on-campus study during which the student takes Educational Administration 100, Educational Values and Programs 100, and Educational Instruction 185. An alternate procedure under this plan calls for taking the three courses during the first five weeks to be followed by the five weeks of full time student teaching.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

220. The High School Curriculum. (3) A. Callahan, Shirts, Flandro, Staff

221. Senior High School Curriculum Workshop. (3) S. Bauer, Flandro, Callahan, Shirts, Staff

222. Junior High School Curriculum Workshop. (3) W. Staff

223. Teaching Home Economics in the Secondary Schools. (3) W. Staff

225. Directing Out-of-Class Activities in the Secondary Schools. (3) S. Callahan, Flandro

226. The Teaching of Reading in Secondary Schools. (3) W. Staff

227. Teaching Art in Secondary Schools. (3) W. Staff

228. Teaching English in Secondary Schools. (3) S. Staff

229. Teaching Mathematics and Science in Secondary Shools. (3) W. Staff

230. Teaching Music in Secondary Schools. (3) S. Madsen

231. Teaching Social Studies in Secondary Schools. (3) S. Staff

232. Teaching Speech in Secondary Schools. (3) W. Staff

233. Methods of Teaching Journalism in Secondary Schools. (3) S. Smith
(See Journalism 268.)

235. Bibliography of the Sciences. (3) Summer. Staff
(See Library Science 271.)

236. Bibliography of the Humanities. (3) Summer. Staff
(See Library Science 272.)

237. Bibliography of the Social Sciences. (3) Summer. Staff
(See Library Science 273.)

College Instruction

Graduate Course

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following course carries **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior** to registration and meets the same requirements made of the graduate students.

240. Teaching in the College and University. (3) A.W.S.
H. G. Clark, Staff

241. The Junior College. (5) A. Browne

242. Methods of Higher Education Instruction. (4) W. Browne

243. Directed Teaching in Higher Education. (6) S. Prerequisite: Instruction 242. Browne

Industrial Instruction

Upper Division Courses

150. Principles and Objectives of Industrial Arts. (3) Staff
Formerly Secondary Education 161 (See Industrial Arts 161.)

151. Methods of Teaching Industrial Arts. (3) Staff
Formerly Secondary Education 162. (See Industrial Arts 162.)

Religious Instruction

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

260. Methods of Teaching Religion. (3) S. Anderson, Berrett

261. Survey of Religious Education. (2) A.S. Belnap
(See Church History and Philosophy 201.)

263. Methods and Techniques for Religious Educators. (2) (Not given this year.) Belnap
(See Church History and Philosophy 202.)

General Instruction

Upper Division Courses

170. Health Education for Teachers. (3) A.W.S. Hart
Designed especially for those who are preparing to teach in the public schools. Formerly Education 158. (See Health 157.)

171. Materials and Methods in Safety Education. (2) A. Bangerter
Formerly Education 157. (See Health 157.)

172. Education Through Play Activities. (3) A. Holbrook
The theory of play considered biologically, historically, and currently in the educational processes. (See also Recreation 131.) Formerly Education 131.

175. Audio-Visual Education. (3) A.W.S. Tyndall, Memmott
An introduction to the audio-visual field. Sources, selection, evaluation, and utilization of audio-visual materials in the classroom in accordance with modern psychology of learning. Operation and care of projejction equipment. Laboratory work will include making and collecting teaching materials such as flat pictures, slides, filmstrips, graphs, and charts.

177. Motion Picture Photography. (3) A.S. Prerequisites: Physics 26, Speech 51, Education 175 or eqivalent. Tyndall
Principles of motion picture photography in educational, recreational, and professional application; practice in use of motion picture camera for indoor and outdoor subjects; script preparation, film editing, titling, sound recording, and special effects.

180. Classification. (3) W. Summer. **Staff**
(See Library Science 150.)

181. Cataloging. (3) W. Summer. **Staff**
(See Library Scicence 151.)

182. Library Science for Teachers and Administrators. (3) A. Summer. **Staff**
(See Library Science 163.)

185. **Principles of Teaching.** (3) A.W.S. Prerequisite: Ed. Instruction 118 (Elementary) or Ed. Instruction 139 (Secondary). Staff

The application of principles of effective teaching to an extended variety of learning situations.

194, 195. Independent Reading. (1-3) A.W.S. Staff

196, 197. Seminar. (1-3) A.W.S. Staff

198, 199. Independent Research. (1-3) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

275. **Audio-Visual Materials and Procedures.** (3) W. Prerequisites: General Instruction 175. Tyndall

277. **The Teaching of Remedial Reading.** (3) S. Krider
278. **Radio and Television in Education.** (2) S. Tyndall
279. **Methods of Teaching Slow-Learning Children.** (3) W. Krider

280. **Education of Exceptional Children.** (3) A.S. Prerequisite: Psychology of Exceptional Children or consent of the instructor. Krider

281. **Problems in Acquisition and Organization of Library Materials.** (3) Summer. Staff
(See Library Science 250.)

282. **Modern Library Practices.** (3) Summer. Staff
(See Library Science 263.)

283. **History of Books and Development of Libraries in our Civilization.** (3) Summer. Staff
(See Library Science 290.)

284. **Advanced Student Teaching for Experienced Teachers.** (2-8) A.W.S. Prerequisite: Field experience plus approval of special committee and chairman of department. Staff
Application should be made in advance.

287. **Administration and Supervision of Student Teaching.** (3) A.W.S. Flandro, Callahan

290, 291, 292. Analysis of In-service Problems. (2-5) A.W.S. Staff

294, 295. Independent Reading. (1-3) A.W.S. Staff

296, 297. Seminar. (1-3) A.W.S. Staff

298, 299. Independent Research. (1-3) A.W.S. Staff

300. **Thesis for Master's Degree.** Staff

301. **Field Project.** Staff

Educational Administration

Professors: J. C. Moffitt, Morrill, Woolf.

Associate Professors: Barnett, A. J. Clark, Burrup (chairman, 114 McK.).

Assistant Professor: Shirts.

Special Lecturer: Hellewell.

Upper Division Courses

100. **The State, the School, and the Teacher.** (3) A.W.S. Prerequisites: Instruction 119 or 139. Barnett, Moffitt, Burrup
The development of the public school system; the relationship of the school to the community; how the school is organized and administered with special emphasis on the Utah system; the legal relationship and responsibility of federal, state, and local agencies to education.

105. **Maintenance and Care of the School Plant.** (1-3) A. Barnett, Hellewell, Morrill
A practical course for janitors, custodians, building engineers, and their directors.

194, 195. Independent Readings. (1-3) A.W.S. Staff

196, 197. Seminar. (1-3) A.W.S. Staff

197, 199. Independent Research. (1-3) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

200. Public School Finance. (3) A.W. Barnett, Burrup

201. Public School Building Programs. (2-3) S. Barnett

203. School Law. (3) W. Barnett, Burrup

205. Organization and Administration of Public Schools. (3) A.S. Burrup

207. Work Improvement Efficiency in the Public Schools. (2) W. H. G. Clark

209. Personnel Problems of the School Staff. (3) W. Barnett

211. The Elementary School Principalship. (3) S. Burrup

212. The Junior High School. (3) S. Callahan, Woolf

213. The Senior High School. (3) W. Woolf

214. Work of the Secondary School Principal. (3) W. Burrup

218. College and University Organization and Administration. (3) (Not given this year.) Staff

225. Supervision of Education. (3) S. Prerequisite: One or more years of successful teaching. Burrup

226. School-Community Relations. (3) A.W.S. Moffitt, Morrill, Burrup

230. Business Administration of the Public Schools. (2-3) Burrup, Barnett

231. Administration of Auxiliary Services. (3) W.S. Burrup, Shirts, Barnett

232. The Organization of Schools. (2) A.W. Morrill, Burrup

234. Administration of Pupil Personnel. (3) A.W.S. Clarke, Romney, Burrup, Shirts

235. Social Foundations of Education. (3) A.W.S. (Not given this year.)
(See Sociology 276.)

236. Problems of Taxation and Financial Support of Public Institutions. (3) (Not given this year.)
(See Economics 267.)

237. Research and Survey Procedures in Educational Administration. (3) A.S. Prerequisite: E.R.S. 218. Staff

238. Workshop Procedures and Group Processes in Educational Administration. (2) W. Morrill, Moffitt, Romney

239. Evaluation and Accreditation of Educational Institutions. (3) A.S. Woolf, Morrill, Clarke

294, 295. Independent Readings. (1-3) A.W.S. Staff

296, 297. Seminar. (1-3) A.W.S. Staff

298, 299. Independent Research. (1-3) A.W.S. Staff

300. Thesis for Master's Degree. Staff

301. Field Project. Staff

Educational Research and Services

Professors: Egbert (chairman, 113 McKay), Lloyd, Woodruff.
Associate Professors: Isaksen, Reid.
Assistant Professors: Downing, S. G. Clark.
Instructors: V. H. Jensen, Parker*, Wright, Harris, Orrock.

The offerings and programs in this department are of two kinds: (1) Those which provide teachers and special personnel with the necessary understandings and insights into human behavior and learning, which they will need in working with normal and with exceptional students, and (2) those which promote research and extend educational services to the University and the public schools. They are presented in four divisions: Educational Psychology, Research and Statistics, Educational Tests and Measurements, and Personnel and Guidance.

Educational Psychology

Upper Division Courses

100. **Educational Psychology.** (4) A. Staff
Psychological facts and principles related to the teaching-learning situation. (Registration for this course is restricted to those individuals who have taken E.R.S. 103. The course will not be offered after the Autumn Quarter.)

101. **Development and Learning.** (6) A.W.S. Egbert, Harris, Downing, Woodruff
This course is designed to give prospective teachers an increased understanding of human behavior and greater sight into the conditions for effective learning. Consideration will be given to development in childhood and adolescence of both normal and deviate personalities, to provision for individual differences and to learning school subjects.

103. **Growth and Development.** (3) A. Staff
The nature and development of human behavior. (Registration for this course is restricted to those individuals who have previously had E.R.S. 100. The course will not be given after the Autumn Quarter.)

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. **Advanced Educational Psychology: Problems of Learning in the Elementary School.** (2) W. Staff

202. **Advanced Educational Psychology: Problems of Learning in the Secondary School.** (2) S. Staff

Research and Statistics

Upper Division Course

115. Statistical Methods. (3) A.W. Egbert

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

215. Advanced Statistics in Education. (3) S. Prerequisite: Educational Research 115. Staff

218. Educational Research and Thesis Writing. (2-3) A.W.S. Staff

219. Research Techniques in Guidance. (3) W. Staff

Educational Tests and Measurements

Upper Division Course

130. Educational Tests and Measurements. (3) A.S. Staff
The evaluation, construction, and administration of various types of objective and standardized tests.

Graduate Course

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following course carries **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

230. Advanced Educational Tests and Measurements. (3) W. Harris

Personnel and Guidance

Lower Division Course

45. College and Life Adjustment. (3) A.W.S. Wright
A problem oriented course designed to aid students in making adjustments to college and life situations. Major emphasis is given to personal and social development, with consideration, also to wise vocational and educational planning.

Upper Division Conrse

145. Guidance Service in Public Schools. (3) A.W.S. Downing, Orrock
An introduction to the principles and practices of the guidance program in public schools designed for prospective teachers at both elementary and secondary levels. This

course may be applied toward the meeting of certification requirements and is a prerequisite to all graduate courses in Personnel and Guidance.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

244. **Introduction to Counseling Theory and Practice.** (3) A. Reid, Isaksen, Wright, Downing

245. **The Case Study and Diagnosis.** (3) W. Reid, Wright

246. **Advanced Counseling Theory.** (3) W. Reid, Isaksen, Wright, Downing

247. **Group Techniques in Guidance.** (3) W. Wright, Downing

248. **Test Techniques in Guidance.** (3) A. Reid, Jensen

249. **Guidance Workshop.** (3) Isaksen

250. **Administration of Guidance Services.** (3) S. Reid, Isaksen

251. **Informational Services in Guidance.** (3) A. Isaksen, Wright

252. **Industrial Counseling.** (3) S. Staff

253. **Guidance Services in the Elementary School.** (3) S. Isaksen, Downing

254. **Student Personnel Services in Higher Education.** (3) S. Lloyd, Isaksen

256. **Internship in Testing.** (3) W. Jensen

257. **Internship in Counseling.** (3) S. Reid, Isaksen, Wright

General Courses

Upper Division Courses

194, 195. Independent Readings. (1-3) A.W.S. Staff

196, 197. Seminar. (1-3) A.W.S. **Staff**

198, 199. Independent Research. (1-3) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

292, 293, 294. Independent Readings. (1-3) A.W.S. Staff

295, 296, 297. Seminar. (1-3) A.W.S. Staff

298, 299. Independent Research. (1-3) A.W.S. Staff

300. Thesis for Master's Degree. Staff

301. Field Project. Staff

Educational Values and Programs

Professors: Romney, Woodruff (acting chairman, 118 McK.)
Instructor: Wiscombe.

The offerings in this department are intended to lead the student into a critical examination of society for the purpose of establishing attitudes toward education and determining the general outlines of what should be taught in our schools. This requires historical and political perspective, sociological insights, and sound religious and philosophical analysis. From these approaches the courses also deal with education as a professional field, educators as professional members of society, and the roles of non-educators and educators in public education.

The courses are offered in four divisions: Philosophy of Education, History of Education, The School in the Social Order, and Educational Objectives and Programs. Except for one service course, the courses in this department are at the graduate level.

Philosophy of Education

Upper Division Course

100. **Educational Values.** (3) A.W.S. Prerequisites: Instruction 119 or 139, except that they may be taken in the same quarter on the "block" plan. Romney, Wiscombe
The identification and analysis of fundamental American values and of value systems, upon which American educational objectives should be based. Problems and concepts encountered in earlier courses in the educational sequence are examined in the light of the values studied.

Graduate Course

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

200. **Philosophy of Education.** (3) A.W.S. Romney, Wiscombe

History of Education

Graduate Course

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following course carries **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

215. **History of Education in America.** (3) W. Romney, Wiscombe

216. **History of Educational Thought.** (3) A. Romney, Wiscombe

217. **Comparative Education.** (3) Romney

The School in the Social Order

Graduate Course

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following course carries **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

230. **Education in the Social Order.** (3) Lloyd

Educational Objectives and Programs

Graduate Courses

(Courses to be announced later)

General Courses

Upper Division Courses

194, 195. **Independent Readings** (1-3) A.W.S. Staff

196, 197. **Seminar.** (1-3) A.W.S. Staff

198, 199. **Independent Research.** (1-3) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

294, 295. **Independent Readings.** (1-3) A.W.S. Staff

296, 297. **Seminar.** (1-3) A.W.S. Staff

298, 299. **Independent Research.** (1-3) 9.W.S. Staff

300. **Thesis for Master's Degree.** Staff

301. **Field Project.** Staff

Electrical Engineering

(See courses in Engineering Sciences.)

Engineering Sciences

Professors: Bartholomew, H. Fletcher.

Associate Professors: Jonsson (chairman 175 ELB), Firmage, Fuhriman, Hodson.

Assistant Professors: Blaine Anderson, Baxter, B. Brown, Simonsen, W. Wiser.

Instructors: Calder, O. K. Skousen.

This department offers a five-year program leading to the degree of Bachelor of Engineering Science. There are five fields of engineering included, namely: Civil, Chemical, Electrical, Geological, and Mechanical Engineering. An acoustical option is offered as an alternate course in Electrical Engineering.

The student completing the prescribed course of study in these fields of engineering science will receive a broad and comprehensive training in engineering, in addition to the general and religious education given to all undergraduate students at Brigham Young University.

ENTRANCE REQUIREMENTS

In addition to having fulfilled the general entrance requirements of the University described on page 81, a student entering the College of Physical and Engineering Sciences should have successfully completed the following high school courses:

3 units of English
3 units of mathematics
1 unit of physical science

Students who have not met these requirements must take extra remedial courses as prescribed by the chairman of the department of his selected major before, or concurrently with, the regular course of studies outlined for his department.

COOPERATIVE PROGRAM WITH COLUMBIA UNIVERSITY

Particularly in engineering fields in which degrees are **not** offered by Brigham Young University, Columbia University will accept candidates for an additional one or two years of scholastic training, after the successful completion of either three or four years of undergraduate work in Engineering Science at Brigham Young University. Prospective candidates should consult the department head for further details.

REQUIREMENTS FOR THE BACHELOR OF ENGINEERING SCIENCE DEGREE

To obtain this degree the student must fulfill the same general educational requirements which apply to the B.S. degree conferred by the Brigham Young University. In addition he must complete the required courses in one field of engineering as described below. A total of 245 credit hours are required.

Below is a five-year outline of the courses in the five fields of engineering leading to the Bachelor of Engineering Science Degree. The following abbreviations are used: Ch.E., for Chemical Engineering; C.E., for Civil Engineering; E.E., for Electrical Engineering; G.E., for Geological Engineering; and M.E., for Mechanical Engineering.

GENERAL EDUCATION GROUP REQUIREMENTS

The General Education Requirements are listed on page 89 together with the elective subjects which the student may select. Among the subjects listed as fulfilling group requirements, it is recommended that engineering science students consider the following:

Group I: automatically filled by following the outline for any engineering field listed below.

	Credit Hours
Group II: Biological Science	8
Bacteriology 21, General Bacteriology	4
Bacteriology 160, Sanitation and Public Health	3
Botany 1, General Botany	5
Botany 166, Conservation of Resources	3
Zoology 11, General Zoology	5
Zoology 197, Natural and Human Resources	3
Group III: Social Science (History 70 or 80 required)	15
Economics 1, Economic Principles	5
Economics 161, Labor Problems	3
History 70, American Heritage	5
Psychology 11, General Psychology	5
Psychology 22, Applied Psychology	3
Political Science 11, State and Local Governments	5
Sociology 11, Introductory Sociology	5
Sociology 12, Social Problems	5
Group IV: Humanities and Aesthetics	15

Any course listed in the general Education Requirements is acceptable. The engineering student will observe that allowance has been made for only 69 hours of general group subjects within the formal program. This implies that the student must usually take advantage of the possibility of cross-referencing six hours of credit between the Humanities and Aesthetics group and the Religion group requirement.

Group V: Religion	24

Any course listed in the General Education Requirements is acceptable.

Students in the R.O.T.C. program may substitute three hours of Air Science for the required three hours of Physical Education. In addition, they may substitute three hours of Air Science for any of the General Education requirements.

ENGINEERING SCIENCE REQUIREMENTS

First Year

(Common to all engineering science courses)

	A.	W.	S.
*Chemistry 14, 15	5	5	0
Mathematics 11, 12, 13: Algebra, Trig., Ana. Geo.	5	5	5
English 1, 2, 3, or 12, 13	3	3	3
Religion	2	2	2
Physical Education	1	1	1
Health Education	0	1	0
Group Elective	0	0	5
M.E. 1	1	0	0
Total hours	17	17	16

*Students not having the proper prerequisites may schedule Chemistry 14 and 15 during the winter and spring quarters. Chemical and Geological Engineers will normally schedule Chemistry 16 during Spring Quarter.

Second Year

(Common to all Engineering Science Courses)

	A.	W.	S.
Mathematics 91, 92, 93: Calculus	4	4	4
Physics 41, 42, 43: General College Physics	5	5	5
Religion	2	2	2
*Civil Engr., 9, 10, 11: Engineering Graphics	2	3	3
*Group Electives	5	3	3
Total hours	18	17	17

*Chemical Engineers will substitute Chemistry 31, 132 for Civil Engineering 9, 10, 11, and the group electives.

CHEMICAL ENGINEERING

Material relating to the field of Chemical Engineering will be found under the Dept. of Chemistry and Chemical Engineering.

CIVIL ENGINEERING

Third Year

	A.	W.	S.
C.E. 101, 102, 103: Engineering Mechanics	5	5	5
C.E. 120: Surveying I	5	0	0

Ch.E. 177, 178: Engineering Materials	0	3	3
M.E. 110: Fluid Mechanics	0	4	0
M.E. 130: Mechanisms	0	0	3
M.E. 123: Elements of Thermodynamics	4	0	0
M.E. 127: Elements of Themodynamics Laboratory	1	1	0
Geology 91: Engineering Geology	0	0	4
Religion	2	0	2
Group II Elective	0	2	0
Group IV Elective (cross reference with religion)	0	3	0
Total hours	17	18	17

Fourth Year

	A.	W.	S.
Math 104, 105: Advanced Mathematics	3	3	0
C.E. 110: Properties of Materials	3	0	0
C.E. 121: Surveying II	0	0	5
C.E. 130: Concrete Technology I	0	4	0
C.E. 140, 141, 142: Structures	4	5	5
C.E. 160: Hydraulic Designs	4	0	0
C.E. 161: Hydrology	0	0	3
Religion	2	0	0
Group II Elective	0	5	0
Group IV Elective	0	0	4
Total hours	16	17	17

Fifth Year

	A.	W.	S.
C.E. 150: Soil Mechanics	4	0	0
C.E. 170: Civil Engineering Practice	0	0	3
E.E. 101, 102, 103: Elements of Electric Engr.	4	4	4
C.E. 143: Structures	5	0	0
C.E. Restricted Electives	0	5	5
Group III Electives	0	5	0
Group IV Electives	3	0	0
Total hours	16	14	12

Civil Engineering Restricted Electives

Subject to approval, 10 credit hours of elective subjects shall be selected from the following:

	Hours Credit
Civil Engineering 171: Construction Methods and Equipment	5
Civil Engineering 172: Public Health and Sanitation	5
Civil Engineering 173: Road Engineering and City Planning	5
Civil Engineering 202: Advanced Structures	5
Civil Engineering 210: Theory of Elasticity	5
Civil Engineering 212: Experimental Stress Analysis	5
Civil Engineering 220: Surveying & Photogrammetry	5
Civil Engineering 230: Concrete Technology II	5
Civil Engineering 240: Advanced Hydraulic Design	5
Civil Engineering 250: Advanced Soil Mechanics	5
Civil Engineering 270: Properties of Materials II	5

ELECTRICAL ENGINEERING

Third Year

	A.	W.	S.
Mathematics 105, 106, 107: Advanced Mathematics	3	3	3
E.E. 151, 152, 153: A.C. Circuits	3	3	3
E.E. 131, 132: Measurements	0	3	3
Geology 91: Engineering Geology	0	0	4
Ch.E. 177, 178: Engineering Materials	0	3	3
Group Electives (cross reference 4 hours with Religion)	8	2	0
Religion	2	2	0
Total hours	16	16	16

Fourth Year

	A.	W.	S.
E.E. 141: Electro-Magnetic Fields	3	0	0
E.E. 181: Transmission Lines and Filters	0	0	5
E.E. 111, 113, 115: D.C. and A.C. Machinery	4	4	4
E.E. 161, 162, 163: Electronics	3	3	3
C.E. 101, 102, 103: Engineering Mechanics	5	5	5
Religion	0	2	0
E.E. 145: Electro-Mechanical Transients	2	0	0
Group Elective (cross reference 2 hours with Religion)	0	2	0
Total hours	17	16	17

Fifth Year

(An acoustical option is listed below)

	A.	W.	S.
M.E. 123: Thermodynamics	4	0	0
M.E. 127: Thermo. Lab.	0	1	0
M.E. 110: Fluid Mechanics	0	0	4
E.E. 182, 183: Communication Systems and UHF	5	4	0
E.E. 184, 185: Communications Laboratory	2	2	0
Restricted Electives	4	3	6
Group Electives	0	5	5
Total hours	15	15	15

Restricted electives which may be taken by approval of the department head include:

Psychology 164, 165, 167: Industrial, Business, & Personnel Psychology	3	3	3
Physics 151, 152, 153: Atomic and Nuclear	3	3	3
*Electrical Engineering 147: Illumination	2	0	0

Electrical Engineering 261, 262, 263: Fundamentals of Acoustics	3	3	3
*Electrical Engineering 167: Architectural Acoustics	0	0	5
*Electrical Engineering 168, 169, 170: Psycho-Acoustics	3	3	3
Electrical Engineering 190: Advanced Laboratory	0	0	1
Electrical Engineering 191: Advanced Laboratory	0	0	1
Electrical Engineering 192: Advanced Laboratory	0	0	1
Electrical Engineering 193: Advanced Laboratory	0	0	1
Electrical Engineering 221: Power Systems	3	0	0
Electrical Engineering 275: Servomechanisms	0	3	0
Electrical Engineering 277: Industrial Electronics	0	0	4

Fifth Year Acoustical Option

The student will substitute four hours of general education for E.E. 115 of the fourth year in Electrical Engineering and in addition follow the course prescribed below:

E.E. 168, 169, 170: Psycho-Acoustics	3	3	3
E.E. 261, 262, 263: Fundamentals of Acoustics	3	3	3
E.E. 264, 265, 266: Acoustical Measurements	2	2	2
E.E. 182, 183: Communication Systems and UHF	5	4	0
E.E. 184, 185: Communication Laboratory	2	2	0
Restricted Electives	0	0	2
Group Electives	0	0	6
Total hours	15	14	16

Restricted Electives which may be taken by approval of the department head include:

E.E. 115: A. C. Machinery	0	0	4
E.E. 267, 268, 269: Advanced Musical Acoustics	2	2	2
E.E. 190: Advanced Laboratory	0	0	1
E.E. 191: Advanced Laboratory	0	0	1
E.E. 192: Advanced Laboratory	0	0	1
E.E. 193: Advanced Laboratory	0	0	1
E.E. 275: Servomechanisms	0	3	0
E.E. 277: Industrial Electronics	0	0	4
M.E. 123: Thermodynamics	4	0	0
M.E. 110: Fluid Mechanics	0	0	4

Material relating to the field of Geological Engineering will be found under the Dept. of Geology and Geological Engineering.

GEOLOGICAL ENGINEERING

Material relating to the field of Geological Engineering will be found under the Department of Geology and Geological Engineering.

MECHANICAL ENGINEERING

Third Year

	A.	W.	S.
Geology 91: Engineering Geology	0	0	4
C.E. 101, 102, 103: Engineering Mechanics (Statics, Dynamics, Materials)	5	5	5
M.E. 120, 121, 122: Thermodynamics and Applications	3	3	5
M.E. 124: Thermodynamics Laboratory	0	2	0
Math 105, 106, 107: Advanced Mathematics	3	3	3
Ch.E. 177, 178: Engineering Materials	3	3	0
Religion	2	2	0
Group Electives (cross reference with Religion)	2	0	0
Total hours	18	18	17

Fourth Year

	A.	W.	S.
C.E. 110: Properties of Materials	3	0	0
M.E. 110, 112: Fluid Mechanics and Dynamics	4	3	0
M.E. 133, 134, 135: Kinematics and Machine Design	4	3	5
M.E. 141: Heat Transfer	0	3	0
M.E. 125, 126: Heat Power Laboratory I, II	0	2	2
Religion	0	2	0
Group Electives (cross reference 4 hours with religion)	2	0	4
E.E. 101, 102, 103: Elements of Electrical Engineering	4	4	4
Total hours	17	17	15

Fifth Year

	A.	W.	S.
M.E. 137: Mechanical Vibrations	3	0	0
M.E. 150: Field Inspection	0	0	2
M.E. 190: Mechanical Engineering Problems	0	0	2
Industrial Management 130: Industrial Management	0	5	0
Restricted Electives	5	5	5
Group Electives	5	5	4
Total hours	13	15	13

Mechanical Engineering Restricted Electives

	Credit Hours
M.E. 151: Time and Motion Study	3
M.E. 152: Production and Quality Control	3
M.E. 171: Refrigeration	3
M.E. 172: Heating, Ventilating, and Air Conditioning	3
M.E. 181: Internal Combustion Engines	4
M.E. 183: Steam and Gas Turbines	3
M.E. 185: Gas Turbine and Jet Engine Power Plants	3
M.E. 187: Power Plant Engineering	3
M.E. 210: Fluid Dynamics and Machinery	3

M.E. 220: Advanced Thermodynamics	3
M.E. 222: Fuels and Combustion	3
M.E. 225: Advanced Heat Transmission	3
M.E. 232: Dynamical Problems in Machine Design	3

The student will consult the department head for courses in other departments which may be offered as restricted electives.

Chemical Engineering

Materials relating to the field of Chemical Engineering will be found under the Dept. of Chemistry and Chemical Engineering.

Civil Engineering

Associate Professors: Firmage, Fuhriman, Hodson.
Instructor: Calder.

9. **Engineering Graphics.** (2) A. Prerequisite: Mathematics 11, 12, 13; must be taken concurrently with Mathematics 91, 92, 93. One lecture and drawing office period.
Materials and instruments in engineering drawing. Introductory practice in orthographic projection. Transfer of pictorial sketches and machine part samples to scaled drawing. Reproduction processes. Drawing principles.

10. **Engineering Graphics.** (3) W. Prerequisite: Civil Engineering 9. Two lecture and drawing office periods.
Graphic principles, including descriptive geometry. Projections, perspective applications, and developments.

11. **Engineering Graphics.** (3) S. Prerequisite: Civil Engineering 10. Two lecture and drawing office periods.
Graphical mathematics, empirical equations, nomography. Graphical calculus. Graphic statics.

101. **Engineering Mechanics (Statics).** (5) A. Prerequisites: General Physics and Civil Engineering 9, 10, 11. Three lectures and two problem periods.
Introductory concepts of mechanics. Force systems and problems of equilibrium applied to structures. Centers of gravity and centroids. Elementary hydrostatics. Friction in engineering problems. Beam problems, virtual work.

102. **Engineering Mechanics (Dynamics).** (5) W. Prerequisite: Civil Engineering 101. Three lectures and two problem periods.
Definitions and principles of kinematics and kinetics. Engineering applications in terms of force, mass, acceleration, work and energy, impulse and momentum, periodic motion.

103. **Engineering Mechanics (Mechanics of Materials).** (5) S. Prerequisite: Civil Engineering 101. Three lectures and two problem periods.
Fundamental concepts in terms of elastic stress and strain relations. Riveted and welded joints; cylinders and spheres

under pressure. Problems of torsional load. Beam theory including bending stresses, complex stress, calculation of deflection and continuity aspects. Two dimensional elastic theory.

110. **Properties of Materials.** (3) A.W. Prerequisite: Civil Engineering 103 or consent of instructor. Two lectures and one laboratory period.
Theories and procedure of physical testing of materials. Introduction to failure theories and rheological behavior of materials. The mechanics of deformation.

120. **Surveying I.** (5) A. Prerequisites: Civil Engineering 9, 10, 11. Two or three lectures, one or two field days.
Lectures and field work in measurements of distances, angles, and differences of elevation using the usual survey methods and instruments. Compass and sextant. Preparation of notes. Adjustments. Simple triangulation and traverses. Plane table.

121. **Surveying II.** (5) S. Prerequisite: Civil Engineering 120. Three lectures, one field day.
More advanced work in survey, precise levelling, tacheometry, reconnaissance and route surveying. Vertical and horizontal curves. Observations for meridian and latitude. Introductory photogrammetry and underground surveying.

122. **Surveying for Geological Engineers.** (3) A.
Selected lectures from Civil Engineering 120.

130. **Concrete Technology I.** (4) W. Prerequisite: Geology 91, C.E. 103. Three lectures, one laboratory period.
Manufacture and testing of cements, technology of concrete materials and concrete mix design. Techniques of concrete handling, placing and treatment. Laboratory work.

140. **Structures 1.** (4) A. Prerequisite: Civil Engineering 103. Three lectures, one drawing period.
Theory and design of statically determinate frame structures in steel and timber; loading problems, influence lines, deflection.

141. **Structures 2.** (5) W. Prerequisite: Civil Engineering 140. Four lectures, one drawing office period.
Continuation of Civil Engineering 140. Web girders, mill buildings. Column and joint details.

142. **Structures 3.** (5) S. Prerequisite: Civil Engineering 141. Four lectures, one drawing office period.
Continuation of Civil Engineering 141. Theory and design of elastic approach to reinforced concrete structures. Proportioning of concrete structures, building code requirements.

143. **Structures 4.*** (5) A. Prerequisite: Civil Engineering 142. Three lectures, two drawing office periods.
Theory and design of statically indeterminate structures.

Redundant frames, strain energy methods, Castigliano's theorems. Slope-deflection equations and relaxation methods. Associated drawing office work.

150. Soil Mechanics. (4) A. Prerequisites: Civil Engineering 103, Geology. Three lectures, one laboratory period.

Properties of soil related to engineering problems. Permeability, capillarity and compressibility related to seepage, uplift and settlement of structures. Shear and bearing factors generally. Cuttings, embankments, and earth dam theories.

160. Hydraulic Design. (4) A. Prerequisite: Mechanical Engineering 110. Three lectures and one three-hour design laboratory per week.

Theory and design of water control and water conveyance structures such as dams, pipe-lines, open channels, hydraulic transitions.

161. Hydrology. (3) S. Prerequisite: satisfactory completion of Civil Engineering 160. Two lectures and one three-hour problem laboratory per week.

A study of water as it occurs in nature. Relationships between precipitation, evaporation, infiltration, transpiration, groundwater, and stream runoff. Methods of collection of hydrologic data, and their use in water resource and flood control studies.

170. Civil Engineering Practice. (3) S. Prerequisite: fifth year standing in Engineering Science.

A study of engineering problems connected with construction equipment and methods, roads, railways, public health, and sanitation.

171. Construction Methods and Equipment. (5) A. Prerequisite: Fifth year standing in Engineering Science. Three lectures, one project period.

Analysis of construction procedure. Cost estimating, job planning, capacity of plant, operating schedules and costs.

172. Public Health and Sanitation. (5) W.S. Prerequisite: Fifth year standing in Engineering Science. Two lectures, two project periods.

Review of public health engineering. Application to design, construction and operation of water supply and sewerage systems.

173. Road Engineering and City Planning. (5) W.S. Prerequisite: Fifth year standing in Engineering Science. Two lectures, two project periods.

Design and construction practice in highways and ancilliary works. Fundamentals of city planning.

202. Advanced Structures. (5) W. Prerequisite: Civil Engineering 143. Three lectures, two drawing office periods. Continuation of Civil Engineering 143.

Arch design and continuous trusses. Plastic theories of structural analysis. Slab structural analysis. Slab problems. Prestressed concrete. Drawing office problems.

210. **Theory of Elasticity.** (5) A. Prerequisites: Civil Engineering 110, Mathematics 104, 105. Three lectures, one laboratory period.

Theory of elastic behavior. Complex stress failure and failure theories. Selected experimental work.

212. **Experimental Stress Analysis.** (5) A. Prerequisites: Civil Engineering 110, Mathematics 104, 105. Three lectures, one laboratory period.

Certain lectures in Civil Engineering 210 are required. The theory and practice of photoelasticity. Structural similitude, analogies. Selected experimental investigations.

213. **Experimental Stress Analysis.** (5) W. (Not given this year.) Prerequisites: Civil Engineering 110, Mathematics 104, 105. Three lectures, one laboratory period.

Continuation of Civil Engineering 212.

220. **Surveying and Photogrammetry.** (5) A. Prerequisites: Civil Engineering 121, Mathematics 104, 105. Three lectures, one laboratory period.

Geodetic survey theory, economy of survey methods. Astronomical observations. Air survey methods. Mining and geophysical survey techniques. Cartographic work.

221. **Surveying and Photogrammetry.** (5) S. (Not given this year.) Prerequisite: Civil Engineering 220. Three lectures, one laboratory period.

Continuation of Civil Engineering 220.

230. **Concrete Technology II.** (5) S. Prerequisite: Civil Engineering 130. Three lectures, one laboratory period.

Basic behavior of concrete materials, introductory micromeritics, physical behavior of set concretes. Cement additive and replacement compounds applied to concrete performance. Examination of physical and chemical factors. Special techniques.

240. **Advanced Hydraulic Design.** (5) W. Prerequisites: Civil Engingeering 142, 160, and 161. Three lectures and two three-hour design laboratories per week.

Planning and basic design of hydro-electric, flood control, irrigation, and multi-purpose projects involving the utilization of water resources. Consideration of hydraulic and hydrologic design elements.

241. **Advanced Hydraulic Design.** (5) S. (Not given this year.) Prerequisite: Civil Engineering 240. Three lectures, two project periods.

Continuation of Civil Engineering 240.

250. **Advanced Soil Mechanics.** (5) W. Prerequisites: Civil Engineering 150, Mathematics 104, 105. Two lectures, two laboratory periods.

Revision and extension of theories of soil behavior. Foundations, tunnels and arching problems, stability of slopes, stabilization.

251. **Advanced Soil Mechanics.** (5) S. (Not given this year.) Prerequisite: Civil Engineering 250. Two lectures, two laboratory periods.

Continuation of Civil Engineering 250.

Electrical Engineering

Professors: Bartholomew, Fletcher.

Associate Professor: Jonsson.

Instructor: O. K. Skousen.

101, 102, 103. Elements of Electrical Engineering. (4-4-4) A.W.S Prerequisites: Physics 41, 42, 43. Three lectures and one three-hour laboratory period per week.

Designed for students not majoring in electrical engineering. A study of direct and alternating current circuit theory and machinery, and electronics.

111. Direct-Current Machinery. (4) A. Prerequisites: Electrical Engineering 153. Three lectures and one three-hour laboratory period per week.

A study of direct-current motors, generators, power distribution, applications.

113, 115. Alternating-Current Machinery. (4-4) W.S. Prerequisites: Electrical Engineering 111, 153. Three lectures and one three-hour laboratory period per week.

Single and polyphase transformers; alternating-current motors and generators; applications.

131, 132. Electrical Measurements. (3-3) W.S. Prerequisites: Physics 41, 42, 43 and Electrical Engineering 151, 152, to be taken concurrently. Two lectures and one two-hour laboratory period per week.

A study of the theory, use, limitations, accuracy, and calibration of electrical instruments including bridges, recorders, indicators, and standard electrical meters.

141. Electro-Magnetic Fields. (3) A.

A study of static and dynamic electric and magnetic fields; both classical and vector mathematics will be employed.

145. Electro-Mechanical Transients.* (2) A. Prerequisite: Mathematics 106, Civil Engineering 10, Electrical Engineering 111, 113, 153. Two lectures per week.

Application of the classical, operator, and La Place transform methods in determining behavior of electrical and electro-mechanical elements under transient conditions.

147. Illumination.* (2) S. (Not given this year.) Prerequisite: Electrical Engineering 153. Two lectures per week.

A study of the principles and design of artificial illumination for various applications; lamp characteristics; measurements; costs.

151, 152, 153. Alternating-Current Circuits. (3-3-3) A.W.S. Prerequisites: Physics 42, Mathematics 93. Three lectures per week.

Steady-state alternating current circuits; vectors; complex algebra; series and parallel impedance networks; resonant circuits; non-sinusoidal waves; Fourier analysis. Series-parallel networks; coupled circuits; polyphase circuits; vector loci; network theorems symmetrical components; elementary filters.

161, 162, 163. Electronics. (3-3-3) A.W.S. Prerequisites: Electrical Engineering 153. Two lectures and one three-hour laboratory period per week.

A study of electron dynamics; vacuum tube characteristics, rectifiers, amplifiers, oscillators, modulators, demodulators, and special purpose tubes.

167. Architectural Acoustics.* (5) W. Prerequisites: Physics 41, 42, 43.

Fundamental behavior of sound in rooms. Effects of shape and size upon the perception of speech and music. Proper use of public address and sound reinforcing systems, sound absorption and insulation properties of different kinds of room walls. Kinds and amounts of sound absorption materials to use in the sound treatments of rooms and auditoriums.

168, 169, 170. Psycho-Acoustics.* (3-3-3) A.W.S. Prerequisite: Electrical Engineering 163. Five lectures per week.

A study of speech and hearing from a communication engineering viewpoint. A synamical analysis of the speech and hearing processes will be developed. The known experimental facts about speech and hearing will be systematically studied and compared with the calculated results. Methods of calculating and measuring the articulation index of talker-listener pair when using any specified type of a communication system.

181. Transmission Lines and Filters. (4) A. Prerequisite: Electrical Engineering 153. Four lectures per week and one 3 hour design laboratory per week.

The general transmission line; transmission networks; filter theory.

182. Communication Systems. (4) W. Prerequisites: Electrical Engineering 163, 181. Four lectures per week and one 3 hour design laboratory per week.

Circuits and systems used in television, radar, and radio engineering.

183. U.H.F. Technique. (4) S. Prerequisite: Electrical Engineering 182. Four lectures per week.

Lines, wave guides, antennas, wave propagation, generators.

184, 185. Communications Laboratory. (2-2) A.W. Parallels Electrical Engineering 182, 183. Two three-hour laboratory periods per week.

Devoted to building and testing circuits studied and designed in parallel theory courses.

190, 191. Advanced Laboratory. (1-1) S. Prerequisite: Electrical Engineering 185.

Each of these courses constitute a block of ten required experiments in the area of U.H.F. Techniques, Electronic Circuits, Communication Systems, Pulse Forming Networks, Transmission Lines, and Filters. The student may register for either course or both courses simultaneously.

192, 193. Advanced Laboratory. (1-1) S. Prerequisite: Electrical Engineering 285.

Each of these courses constitute a block of ten required experiments in the area of Machinery Control Systems. Machinery Characteristics, and Power Distribution Methods. The student may register for either course or both courses simultaneously.

221. Power Systems. (3) A. Prerequisite: Electrical Engineering: 113. Three lectures per week.

A study of power distribution and system protection.

261, 262, 263. Fundamentals of Acoustics. (3-3-3) A.W.S. Prerequisite: Electrical Engineering 163. Three lectures per week.

A three-quarter course on basic principles underlying Acoustical Engineering. The equations of wave motion for plain and spherical waves are developed and then applied to the design of cone and horn types of loudspeakers, microphones, telephone receivers, hydrophones and underwater acoustics, and to reflection, absorption, and transmission of sound at boundary layers.

264, 265, 266. Acoustical Measurements. (2-2-2) A.W.S. Parallel: Electrical Engineering 261, 262, 263. Two laboratory periods per week.

Laboratory measurements of sound, such as noise surveys, response measurements of microphones, telephone receivers, loudspeakers, tube and reverberations chamber measurements of sound absorption, etc.

267, 268, 269. Advanced Musical Acoustics. (2-2-2) A.W.S. Prerequisites: Physics 41, 42, 43; Electrical Engineering 261, 262, 263. Two lectures per week.

A technical study of the acoustical behavior of the different musical instruments, a consideration of the sound power output of single instruments and ensembles, stereophonic reproduction of music, possibilities of electronic musical instruments.

275. Servomechanisms. (3) W. Prerequisite: Electrical Engineering 153, 163; Mathematics 106. Three lectures per week.

Theory and application of electrical and electro-mechanical automatic control systems.

277. Industrial Electronics. (4) S. Prerequisites: Electrical Engineering 163. Three lectures and one three-hour laboratory period per week.

Applications of electronics to industrial use. Rectification; electronic control; electronic measurements; dielectric heating; welding; etc.

Geological Engineering

Material relating to Geological Engineering will be found under the Dept. of Geology and Geological Engineering.

Mechanical Engineering

Assistant Professors: Blaine Andersen, Baxter, Simonson.

1. **Engineering Orientation.** (1) A.W.S. One lecture per week.
An introduction to the fields and profession of Engineering. Required for all freshman engineering students.

110. **Fluid Mechanics.** (4) A.W.S. Three lectures and one three-hour laboratory per week. Prerequisites: Math 93, Civil Engineering 102, Mechanical Engineering 120 or 123.
Physical properties of fluids; fluid statics; viscous flow; dimensional analysis; incompressible flow; compressible flow; fluid meters; lift and drag; dynamic similarity; momentum, fluid machinery.

112. **Fluid Dynamics.** (3) W. Three lectures per week.
A continuation of Mechanical Engineering 110.

120, 121, 122. **Thermodynamics and Applications.** (3-3-5) A.W.S. Prerequisites: Mathematics 93, Physics 42. Three lectures per week, A.W. Daily lectures, S.
First law and applications, thermodynamic systems, properties of gases, liquids, and vapors. Second law and applications, entropy; properties of gaseous mixtures, fluid flow; combustion; gas and vapor cycles and applications to machinery; refrigeration; compression of gases; air-water vapor mixtures.

123. **Elements of Thermodynamics.** (4) A. Daily lectures. Prerequisites: Mathematics 93, Physics 42.
First and second laws; properties of systems; thermodynamics of gases and vapors; applications to thermodynamic cycles. Designed for students not majoring in mechanical engineering.

124. **Thermodynamics Laboratory I.** (2) S. One hour lecture and three hours laboratory per week. Prerequisite: Mechanical Engineering 120.
Instruments for measuring pressure, temperature, speed power, and area; flow meters; technical report writing.

125 ,126. **Heat Power Laboratory I, II.** (2-2) W.S. One four-hour period per week. Prerequisites: Mechanical Engineering 121, 124.
Steam turbines; internal combustion engines; heat transfer; pumps; calorimetry; air compressors, refrigeration; steam generators; technical reports.

127. Elements of Thermodynamics Laboratory. (1) A.W.S. One three-hour laboratory period per week.
Laboratory to follow Mechanical Engineering 123.

130. Mechanisms. (3) S. Two lectures and one three-hour laboratory per week. Prerequisite or parallel: Civil Engineering 101.
Motions and velocities of machine parts. For students not majoring in Mechanical Engineering.

133. Kinematics of Machines. (4) A. Two lectures and two three-hour laboratories per week. Prerequisite: Civil Engineering 102.
Velocities and accelerations in machine parts; rolling contact; cams, gearing, flexible connectors, etc.

134. Machine Design I. (3) W. Three lectures per week. Prerequisites: Mechanical Engineering 133 and Civil Engineering 103.
Theory and design of machine elements; proportioning of machine parts according to the laws of mechanics and engineering materials.

135. Machine Design II. (5) S. Three lectures and two three-hour laboratory periods per week.
A continuation of M.E. 134.

137. Mechanical Vibrations. (3) A. Three lectures per week. Prerequisites: Math 106, C.E. 103. Fundamentals of simple vibrating systems with applications.

141. Heat Transfer. (3) W. Three lectures per week. Prerequisites: Mechanical Engineering 122, Mathematics 105.
Fundamental principles of heat transfer by conduction, convection, and radiation.

150. Manufacturing Processes. (2) S. One lecture and one field inspection trip per week.
Field trips to some of the various industrial plants in the area.

151. Time and Motion Study*. (3) Two lectures and one laboratory per week.
Principles of motion economy, techniques of motion and time study and their interrelationship.

152. Production and Quality Control.* (3) Three lectures per week.
Basic concepts of quantitative and qualitative control in industrial organizations of both manufacturing and service types. To include principles of materials-handling affecting the above concepts.

171. Refrigeration.* (3) Three lectures per week. Prerequisite: Mechanical Engineering 122.
Cycles and analysis; selection of systems and component parts; estimation of loads.

172. **Heating, Ventilating and Air Conditioning.*** (3) Three lectures per week. Prerequisite: Mechanical Engineering 122.
Heating and cooling for comfort. Design of warm air, hot water and steam heating systems for residences and commercial buildings.

172. **Heating, Ventilating and Air Conditioning.*** (3) Three lectures per week. Prerequisite: Mechanical Engineering 122.
Basic principles; theoretical and actual cycles; performance characteristics.

181. **Internal Combustion Engines.*** (4) Three lectures and one laboratory per week. Prerequisite: Mechanical Engineering 122.

183. **Steam and Gas Turbines.*** (3) Three lectures per week. Prerequisites: Mechanical Engineering 112, 122.
Analysis and design of nozzles, blades and other components of steam and gas turbines; cycle analysis.

185. **Gas Turbine and Jet Engine Power Plants.*** (3) Three lectures per week. Prerequisites: Mechanical Engineering 112, 122.
Analysis of cycles and performance of gas turbine, jet engine and rocket propulsion systems, including flow through component parts.

187. **Power Plant Engineering.*** (3) Three lectures per week. Prerequisite: Mechanical Engineering 122.
Analysis of power plants, including performance of prime movers, economics, and heat balance studies.

190. **Mechanical Engineering Problems.** (2) S. One four-hour problem laboratory per week. Prerequisite: Fifth year standing.
Selected problems from the field which will enable the student to integrate his fundamental knowledge in their solution.

210. **Fluid Dynamics and Machinery.*** (3) Three lectures per week. Prerequisites: Mechanical Engineering 112 and Mathematics 105.
Steady and unsteady flow of compressible and incompressible fluids; principles of operation of fluid dynamical machinery.

220. **Advanced Thermodynamics.*** (3) Three lectures per week. Prerequisites: Mechanical Engineering 122 and Mathematics 105.
Extended treatment of the fundamentals of thermodynamics including transient conditions, equilibrium, combustion and real gases.

222. **Fuels and Combustion.*** (3) Three lectures per week. Prerequisite: Mechanical Engineering 122.
Properties of fuels; characteristics of air-fuel mixtures; combustion characteristics; calculations.

225. Advanced Heat Transmission. (3) Three lectures per week. Prerequisite: Mechanical Engineering 141.

An extension of Mechanical Engineering 141 to include numerical and approximate methods of solution, transient problems, and solution of problems by analogy methods.

232. Advanced Vibration Analysis. (3) S. Three lectures per week. Prerequisite: M.E. 137.

Vibration characteristics of systems with several degrees of freedom, elastic bodies, systems with transient vibrations, and simple non-linear systems.

*Courses marked with an asterisk offered upon approval of department head.

English

Professors: Barker, Christensen, Young.

Associate Professors: Rice (chairman, 241 McK), Britsch, Carroll (emeritus), Cheney, D. B. Farnsworth, E. L. Hart, B. S. Jacobs, Spears.

Assistant Professors: B. B. Clark, Craig, Larson, Monson, Rich, Tanner, Thomas.

Instructors: Alder, Bailey, Burmingham, M. J. Clark, Dunn (emeritus), Esplin, D. L. Evans, Grass, McKendrick, Oaks, Olson, Smart, Statham, Thomson, Waterstradt, West, Wood.

PLACEMENT TEST FOR FRESHMAN COMPOSITION

A placement test to determine the individual needs of students in English is required of all new students at the time of registration. Assignments to classes of Freshman Composition are made after this test. Students who place high on the test will take English 12 and 13; students who need some remedial work will take English 1a, 2, and 3; students whose ability is below that expected of a college freshman will take English A (Special fee: $10.00) with another placement test at the end of that course determining their registration for Freshman Composition; all other students will take English 1, 2, and 3.

SCOPE OF INSTRUCTION

The English department offers courses in writing, literature, and the English language, which are numbered as follows:

Writing, remedial, and methodology courses	0-19, 100-119, 200-219
Grammar, word study, and language courses	20-29, 120-129, 220-229
Novel courses	30-39, 130-139, 230-239
Drama courses	40-49, 140-149, 240-249
Comparative and world literature courses	50-59, 150-159, 250-259
American literature courses	60-65, 160-165, 260-265
Combined American and English literature courses	66-69, 166-169, 266-269
English literature courses	70-79, 170-179, 270-279
Single author courses	80-89, 180-189, 280-289
Miscellaneous courses	90-99, 190-199, 290-299

REQUIREMENTS FOR AN ENGLISH MAJOR

The departmental requirement for a major is that a student complete at least forty-five hours in English beyond Freshman Composition. The following program is prescribed:

	Hours
a. 51 - Fundamentals of English for Majors and Minors	5
b. 162 - Major Figures of the American Renaissance	5

c. One of the following period courses in American literature 5

161 - American Literature to the Civil War (5)
163 - American Literature since the Civil War (5)

d. English period courses or authorized substitutes .. 16 to 20

A major is expected to complete classes in four of the five periods of English literature. He may fulfill this requirement by taking four of the period courses (courses 171-175) or, with the permission of the department chairman or the student's departmental adviser, two or three of the period courses with substitutes as indicated below to bring the total of periods studied to four.

1) 171 - The Medieval Period (5) or
    181 - Chaucer (4)
2) 172 - The Renaissance (5), or
    141 - English Drama to 1642 (3), or
    152 - The Renaissance in European Literature (5)
3) 173 - The Neo-Classical Period (5), or
    142 - Restoration and Eighteenth Century Drama (3), or
    153 - Neo-Classicism in European Literature (5)
4) 174 - The Romantic Period (5), or
    154 - Romanticism in European Literature (5)
5) 175 - The Victorian Period (5), or
    132 - The English Novel from Dickens to Hardy (3)

e. 182 - Shakespeare 5

f. Comparative or world literature, chosen from the list below 5

41, 42, 43 - Masters of the Drama, Ancient to Modern (3-3-3)
152, 153, 154 - The Renaissance, Neo-Classicism, and Romanticism in European Literature (5-5-5)
156, 157, 158 - World Classics (3-3-3)
191 - The Spirit of Tragedy in Literature (4)

g. Grammar, history of the English language, or literary criticism 5

This requirement, especially for those majors who plan to teach English in high school or college, will ordinarily be met by taking English Grammar, although either of the other courses listed below may be substituted with the approval of the department chairman or the student's departmental adviser.

21 - English Grammar (5)
121 - The History of the English Language (5)
190 - The Criticism and Appreciation of Literature (5)

h. 195 - Senior Seminar for English Majors 2

Courses 152, 153, and 154, may be counted as fulfilling requirements **d.** and **f.** Under no circumstances however, may a student graduate as an English major with fewer than forty-five hours of English beyond Freshman Composition.

In addition to the university requirements for graduation and the departmental requirements for a major, each English major is expected to complete twenty-four hours in one foreign language.

REQUIREMENTS FOR A TEACHING MAJOR IN ENGLISH

The requirements for the teaching major in English and for the regular major are the same except that the foreign language requirements may be reduced or waived by the department to meet the special needs of some prospective teachers. Such reductions or waivers would necessitate, of course, the substitution of the Bachelor of Science degree for the degree of Bachelor of Arts.

English is one of the subjects comprising the composite major in Language Arts designed for prospective teachers.

RECOMMENDATIONS FOR AN ENGLISH MINOR

Following is the recommended minimum program beyond Freshman Composition for a student minoring in English and planning to teach English in high school:

	Hours
a. 51 - Fundamentals of English for Majors and Minors	5
b. 21 - English Grammar	5
c. 82 or 182 - Shakespeare	3 or 5
d. Upper-division course(s) in American literature (162 - Major Figures of the American Renaissance is recommended as likely to be most useful.)	5
e. Upper-division course(s) in English literature (174 - The Romantic Period or 175 - The Victorian Period is recommended as likely to be most useful.)	5

GRADUATE WORK IN ENGLISH

A graduate student may major in either American or English literature; he may minor in a subject outside the English department or in English literature, American literature, or language. It is assumed that anyone granted a Master of Arts degree in English will be well-grounded in the entire field of English and also well-trained in his graduate major and minor. Each student should check the department's requirements for an undergraduate major in English and make up the deficiencies in his undergraduate program insofar as possible. Among the forty-five hours required for a Master of Arts degree, each student must take the following courses:

	Hours
a. 215 - Bibliography and Methods of Research	2
b. 221 - Old English	5

The following courses must also be included if the student did not have them as an undergraduate:

a. 121 - The History of the English Language	5
b. 190 - The Criticism and Appreciation of Literature	5

GENERAL EDUCATION

A student filling his general education requirement in literature under the humanities and aesthetics requirement may take any literature course for which he has the proper background, but the Department especially recommends the following courses as being particularly suitable for general education: 41, 42, 43, 50, 52, 53, 54, 61, 62, 63, 71, 72, 73, 82, 150, 156, 157, 158, 159.

FRESHMAN COMPOSITION COURSES

(These courses may not apply to the English minor)

A. **Preparatory English.** (0) A.W.S. Staff
A one-quarter, three hour, non-credit service course taught through the Extension Division designed to prepare the student whose English Placement Test score indicates that he is not, without further preparation, qualified to do the work of English 1, 2, 3. A fee will be charged for this course, and students who complete satisfactorily will be required to complete General Education requirement in English Composition.

1a. Composition and Reading. (3) A.W. Staff
A five-hour course for which three hours' credit will be given. Designed for students whose English Placement Test score indicates that they are not qualified to do the work in English 1 without additional help. Students who complete English 1a satisfactorily will register for English 2.

1, 2, 3. Composition and Reading. (3-3-3) A.W.S. Staff
Review of grammar and development of acceptable standards of usage, of fundamental skills of effective writing, of critical awareness of the resources of language, and of skill in reading rapidly and critically.

12, 13. Composition and Reading. (3-3) A.W.S. Staff
A course alternative to English 1, 2, 3 designed for the student whose English Placement Test score indicates superior ability and training in composition. Successful completion of these two courses will satisfy the General Education requirement in English Composition except for those students receiving a grade of C or lower who will be asked to make up their deficiency by taking English 22 (Advanced Composition).

Lower Division Courses

X. Remedial Reading. (0) A.W.S. M. Clark, Olson
A non-credit service course utilizing modern clinical methods in developing reading speed and comprehension.

5, 6, 7. English for Foreigners. (3-3-3) A.W.S. Staff
A service course for foreign students who are learning English. (This course may not be used to apply to an English minor nor does it satisfy the Freshman English requirement.)

15. **Expository Writing.** (3) A.W.S. Prerequisites: English 1, 2, 3, or 12, 13. Staff

A basic composition course intended to develop clarity, precision, and style in factual writing.

16. **Technical Writing.** (3) A.W.S. Prerequisites: English 1, 2, 3, or 12, 13. Staff

A composition course intended to develop accuracy and skill in writing and documenting library or laboratory research reports.

17. **Business English.** (3) A.W.S. Prerequisites: English 1, 2, 3 or 12, 13. Staff

Prerequisites: English 1, 2, 3 or 12, 13.

18. **Imaginative Writing.** (3) A.W.S. Prerequisites: English 1, 2, 3, or 12, 13. Larson, Cheney

A composition course intended to develop expressive skill and power through the writing of short stories, poems, dramas, and/or informal essays.

21. **English Grammar.** (5) A.W.S. Prerequisites: English 1, 2, 3 or 12, 13. McKendrick, Britsch, Young, West

A descriptive and analytical study of present-day English grammar, emphasizing syntax, forms, and usages.

25. **Vocabulary Building.** (3) A.W.S. Young, Monson, McKendrick

A service course intended to develop an effective vocabulary through assiduous study of prefixes, suffixes, and roots.

26. **Semantics.** (3) A. Thomas, McKendrick

A study of the function of words in written and spoken communication.

41. **Masters of the Drama, Ancient to Modern.** (3) A. (GER-HA) Craig

The origin of the drama with emphasis on the Greek and Roman dramatists.

42. **Masters of the Drama, Ancient to Modern.** (3) W. (GER-HA) Craig

Medieval, renaissance, and early modern drama, both continental and English.

43. **Masters of the Drama, Ancient to Modern.** (3) S. (GER-HA) Craig

Modern drama—continental, English, and American—stressing its national character and the influence of earlier drama on the modern.

50. **Introduction to Literature.** (4) A.W.S. (GER-HA) Farnsworth, Tanner

A study of the various types of literature—the short story and novel, poetry, the essay, biography, and drama—with a critical reading and analysis of significant examples of each type.

51. **Fundamentals of English for Majors and Minors.** (5) A.W.S.
Prerequisites: English 1, 2, 3 or 12, 13. B. Clark, West, Cheney

A basic course in literary appreciation and criticism, literary terminology, and writing. Required of all English majors and recommended for English minors. Should be taken in the sophomore year.

52. **Introduction to Poetry.** (3) A.W.S. (GER-HA) Hart, Larson, Evans

An appreciation course in poetry, emphasizing the critical reading and analysis of significant poems of various types.

53. **Introduction to Drama.** (3) A.W.S. (GER-HA) Tanner, Waterstradt, Monson

An appreciation course in drama, with attention given to the various forms—tragedy, comedy, farce, melodrama, and the modern problem play—and with a critical reading of famous examples of each type.

54. **Introduction to Biography.** (3) W. (GER-HA) Young

A study of the short biographies of some famous statesmen, patriots, adventurers, scientists, inventors, painters, writers, and others, including Hitler, Napoleon III, George III, Edison, Wilson, Jefferson, Lincoln, John Brown, Goethe, Gaugin, the Curies, and Dolly Madison.

61. **Masterpieces of American Literature.** (2) A. (GER-HA) Staff

Selected readings in American literature from colonial times to Emerson, with emphasis on Franklin, Poe, Hawthorne, and Emerson.

62. **Masterpieces of American Literature.** (2) W. (GER-HA) Staff

Selected readings in American literature from Thoreau to Mark Twain, with emphasis on Thoreau, Melville, Whitman, and Mark Twain.

63. **Masterpieces of American Literature.** (2) S. (GER-HA) Staff

Selected readings in American literature from about 1890 to the present.

71. **Masterpieces of English Literature.** (2) A. (GER-HA) Staff

Selected readings in medieval and renaissance English literature, including selections from the folk epic Beowulf, Chaucer's Canterbury Tales, the Middle English folk ballads, and Shakespeare's plays and sonnets.

72. **Masterpieces of English Literature.** (2) W. (GER-HA) Staff

Selected readings in 17th and 18th century English literature, including selections from the 17th century lyrics and from the works of Milton, Dryden, Pope, Swift, Gray, Blake, and Burns.

73. **Masterpieces of English Literature.** (2) S. (GER-HA) Staff
Selected readings in 19th and 20th century English literature, including selections from the great novels of these centuries and from the works of Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Hardy, Yeats, and Eliot.

82. **Shakespeare.** (3) A.W.S. (GER-HA) Britsch, Young
An appreciation course in Shakespeare, with an interpretive reading of from six to eight of his great dramas.

Upper Division Courses

118. **Advanced Imaginative Writing.** (3) S. Prerequisite: English 18 or special permission of the instructor or the department chairman. Larson
A composition course intended to give experienced student writers opportunity to further develop their skills in writing poetry, fiction, and drama.

121. **History of the English Language.** (5) S. Christensen
A course descriptive of the English language in the various stages of its development, with a background of related historical events.

131. **The English Novel to 1832.** (3) (GER-HA) (Not given this year.) Rice
English prose fiction to the beginning of the Victorian period, with emphasis on Defoe, Richardson, Fielding, Smollett, Sterne, Scott, and Austen.

132. **The English Novel from Dickens to Hardy.** (3) A. (GER-HA) B. Clark
The English novel from 1832 to 1900, with emphasis on Dickens, Thackeray, Trollope, the Brontes, George Eliot, and Hardy.

133. **The Modern English Novel.** (3) S. (GER-HA) B. Clark
The English novel from 1890 to the present, with emphasis on Hardy, Conrad, Bennett, Galsworthy, Lawrence. Maughm, Joyce, Woolf, and several contemporary novelists.

135. **The American Novel to Dreiser.** (3) A. (GER-HA) Jacobs, Olson
Nineteenth century American novelists, with emphasis on Cooper, Hawthorne, Melville, Twain, Howells, and James.

136. **The Modern American Novel.** (3) W. (GER-HA) Jacobs
Twentieth century American novelists, with emphasis on Dreiser, Cather, Lewis, Hemingway, Faulkner, Steinbeck, Wolfe, and Fitzgerald.

141. **English Drama to 1642.** (3) A. (GER-HA) Young
The religious drama of the Middle Ages, court plays, and the popular drama of the Renaissance, excluding Shakespeare.

142. Restoration and Eighteenth Century Drama. (3) W. (GER-HA) Staff
English drama from 1660 to 1800, with emphasis on high comedy, sentimental comedy, and heroic tragedy.

143. Modern English and American Drama. (3) S. (GER-HA) Staff
The major English and American dramatists since 1890.

150. The Bible as Literature. (3) A.W.S. (GER-HA; GER-R) Smart, Thomas, Olson

152. The Renaissance in European Literature. (5) A. (GER-HA) Spears
The major writers of the European Renaissance, including Montaigne, Boccaccio, Ariosto, Shakespeare, and Cervantes.

153. Neo-Classicism in European Literature. (5) W. (GER-HA) Spears
The major writers of the 17th and 18th centuries in Europe, including Moliere, Voltaire, Dryden, Pope, Swift, Racine, Corneille, and Lessing.

154. Romanticism in European Literature. (5) S. (GER-HA) Spears
The major writers of the Romantic Age in Europe, including Goethe, Rousseau, Wordsworth, Shelley, Keats, Victor Hugo, and Madame de Stael.

156. World Classics. (3) A. (GER-HA) Britsch, Thomas
Greek epic and tragedy, with emphasis on the works of Homer, Aeschylus, Sophocles, and Euripides in modern translation.

157. World Classics. (3) W. (GER-HA) Britsch
Latin and Italian epic, especially Virgil's Aeneid and Dante's Divine Comedy in modern translation.

158. World Classics. (3) S. (GER-HA) Britsch
European masterpieces of the modern era, with emphasis on the works of Goethe, Schiller, Voltaire, Balzac, Flaubert, Pushkin, Turgenev, Tolstoy, and Ibsen, in translation.

159. The Short Story. (3) A.S. (GER-HA) Cheney, B. Clark
A critical study of selected great short stories—American, English, and European—with emphasis on 20th century stories.

161. Early American Literature. (5) A. (GER-HA) Jacobs
American Literature from the beginnings to the Civil War, with emphasis on Colonialism, Puritanism, the Enlightenment, Nationalism and Romanticism. (Does not include authors studied in English 162.)

162. American Renaissance. (5) A.W.S. (GER-HA) Esplin, Jacobs, Thomas
Readings in the major figures of the American Renaissance: Emerson, Hawthorne, Thoreau, Whitman, and Melville.

163. Later American Literature. (5) W.S. (GER-HA) M. Clark, Jacobs

American literature from the Civil War to the present, with emphasis on Realism. Local Color and Naturalism.

166. Modern Poetry. (3) A.S. (GER-HA) Larson

Major English and American poets of the 20th century.

167. English and American Folk Poetry. (3) W. (GER-HA) Cheney

English and Scottish ballads and American folk song.

171. English Literature to 1500: the Medieval Period. (5) A. (GER-HA) Christensen

English literature from the beginnings to 1500, with emphasis on its relationship to other European literatures.

172. English Literature from 1500 to 1660: the Renaissance Period. (5) W. (GER-HA) Young

English dramatic and non-dramatic poetry and English prose of the Renaissance period, including Milton but excluding Shakespeare.

173. English Literature from 1660 to 1780: the Neo-Classical Period. (5) S. (GER-HA) Monson, Rice

English literature from the Restoration through the Augustan Age of Reason to the beginnings of Romanticism, including the works of Dryden, Defoe, Swift, Fielding, Pope, and Johnson.

174. English Literature from 1780 to 1832: the Romantic Period. (5) A.W. (GER-HA) Tanner, B. Clark

English literature of the Age of Romanticism, including the works of Blake, Wordsworth, Coleridge, Scott, Lamb, Byron, Shelley, and Keats.

175. English Literature from 1832 to 1900: the Victorian Period. (5) W.S. (GER-HA) Farnsworth, Britsch, B. Clark, Hart

English literature of the middle and later 19th century, including the works of Carlyle, Ruskin, Dickens, Browning, Tennyson, Arnold, the Rossettis, Morris, Swinburne, Meredith, and Hardy.

176. Twentieth Century English Literature. (3) S. (GER-HA) Hart

The major English poets, dramatists, and fiction writers of our century.

181. Chaucer. (4) W. (GER-HA) Christensen

182. Shakespeare. (5) W.S. (GER-HA) Christensen

183. Milton. (3) A. (GER-HA) Christensen

185a, b, c. Eminent American Writers. (2-2-2) A.W.S. (GER-HA) Staff

(Different writers are treated each year in this series, which may therefore be taken more than once for credit.)

186a, b. c. **Eminent English Writers.** (2-2-2) A.W.S. (GER-HA) Staff
(Different writers are treated each year in this series, which may therefore be taken more than once for credit.)

187. **Matthew Arnold.** (3) S. (GER-HA) Christensen

190. **The Criticism and Appreciation of Literature.** (5) A. (GER-HA) Hart
A study of critical theories and standards of value.

191. **The Spirit of Tragedy in Literature.** (4) W. (GER-HA) Christensen
A study of tragedy as experienced in drama from the Greeks to the present time.

195. **Senior Seminar for English Majors.** (2) A.W.S. Staff
(Class will meet once a week during autumn and winter quarters and will end with a written comprehensive examination early in spring quarter.)

199a, b, c. **Individual Study in English.** (1-6) A.W.S. Staff
(Available only to English majors and students on foreign tours. English majors in residence will be limited to a maximum cumulative total of 3 credit hours, students on tour to a maximum total of 6 credit hours. 199a will indicate a first registration for the course, 199b a second registration, and 199c a third registration.)
Student teaching in the public schools. (Note: See explanation of fees in section on secondary instruction.)

ENGLISH EDUCATION COURSES

(See College of Education)

120. **Basic Classroom Procedure.** (4) S. Prerequisites: ERS 103 and 100 or 101. West
A basic course treating procedures, techniques, and materials for instruction in English in the secondary schools.

138. **Curriculum and Methods.** (4) A. Prerequisite: Secondary Instruction 120 or English Education 120. West
A course designed to develop techniques of providing continuous, well-organized learning experiences for secondary school pupils in English. (Note: See explanation of fees in section on secondary instruction.)

139. **Student Teaching.** (6) W. Prerequisite: Secondary Instruction 138 or English Education 138. West

Graduate Courses

201. **Problems in Thesis Writing.** (0) A.W. Britsch, Rice

215. **Bibliography and Methods of Research.** (2) A. Larson

221. **Old English.** (5) A. Young

222. **Middle English.** (3) (Not given this year.) Monson, Christensen

223. **Beowulf.** (3) (Not given this year.) McKendrick

231. **Seminar in the English Novel.** (3) W. B. Clark

235. **Seminar in the American Novel.** (3) W. Smart

241. **Seminar in English Drama.** (3) S. Craig

261. **Colonialism and Puritanism in American Literature.** (3) A. Jacobs

262. **Romanticism in American Literature.** (3) W. Thomas

263. **Transcendentalism in American Literature.** (3) S. Jacobs

264. **Realism and Naturalism in American Literature.** (3) (Not given this year.

271. **The Medieval Period in English Literature.** (3) A. Christensen

272. **The Renaissance in English Literature.** (3) W. Young

273. **Neo-Classicism in English Literature.** (3) (Not given this year.) Hart, Rice

274. **Romanticism in English Literature.** (3) (Not given this year.) B. Clark, Smart

275. **The Victorian Age in English Literature.** (3) S. Farnsworth

282. **Shakespeare.** (3) S. Hart

299. **Individual Study in English.** (1-3) A.W.S. Staff

300. **Thesis for Master's Degree.** A.W.S. Staff

Entomology

(See Department of Zoology and Entomology.)

Family Relationships

..(See courses in Human Development and Family Relationships)..

Field Crop Production

(See courses in Agronomy.)

Finance and Banking

Professors: H. R. Clark, Boyle, Edwards, Pond.

Assistant Professors: H. V. Andersen, H. D. Lowe (chairman, 166N).

Instructors: Davies, D. S. Grow, Sandgren, Hamblin.

Every individual and every business institution has problems which require an understanding of finance and banking. Courses designed to meet these problems are offered in this department, so that students may render service in the fields of banking, insurance, investment institutions, government finance, and industrial and other business organizations as well as in the teaching of these subjects.

The courses listed below include both the University and the Departmental requirements. In addition, each student will select electives according to his individual needs and desires.

I. Freshman and Sophomore years

A. General Education Requirements
1. Religious Education .... 12 hours
2. English (Composition) .... 9 hours
3. Biological Sciences .... 8 hours
4. Physical Sciences (from 2 depts.) .... 9 hours
5. Humanities and Aesthetics (from 2 depts.) .... 15 hours
    Suggest: Finance & Banking 74
        (Economic History of U.S.) 5 hours
        Electives 10 hours
6. Social Sciences .... 15 hours
    Economics 1 5 hours
    Political Science 10 5 hours
    Psychology 11 (recommended) 5 hours
7. Physical Education and Health .... 4 hours

B. Finance and Banking and other department requirements
1. Accounting 1, 2 .... 10 hours
2. Accounting 35 (Math. of Business) .... 5 hours
3. Economics 75 (Statistics) .... 5 hours
    Recommended: Office Mgt. 32 (Bus. Comm.).... 3 hours

II. Junior and Senior years

A. General Education Requirements
1. Religious Education (upper div. courses) .... 12 hours
2. Students who have not heretofore completed all Univerity and group requirements should do so as early as consistent.

B. Finance and Banking and other department requirements
1. Marketing 107 .... 5 hours
2. Industrial Mgt. 120 (Managerial Control) .... 5 hours
3. Industrial Mgt. 130 (Ind. Management) .... 5 hours
4. Economics 145 .... 5 hours
5. Fin. & Banking 151 (Business Finance) .... 5 hours

6. Fin. & Banking 152 (Business Finance)	5 hours
7. Fin. & Banking 153 (Money & Banking)	4 hours
8. Fin. & Banking 157, 158, 159 (Commercial Law)	12 hours
9. Fin. & Banking 167 (Government Finance)	5 hours
10. Fin. & Banking 254 (Investments)	5 hours
11. Fin. & Banking 268 (Economics of Finance)	5 hours

C. Recommended courses

1. Fin. & Banking 190, 191, 192 (Prob. in Business Management)	9 hours
2. Economics 194	5 hours
3. Fin. & Banking 155 (Gen. Insurance)	5 hours
4. Psychology 165 (Business Psychology)	3 hours

Lower Division Course

74. Economic and Financial History of the United States. (5) A.S. Davies
(See History 74.)

Upper Division Courses

151, 152. Business Finance. (5) (151, A.W.S.; 152, W.S.) Prerequisites: Economics 1, 145; Business Management 120 or equivalent. Clark
Financial problems connected with the organization of corporations, underwriting and the sale of securities, also management, expansion, and the organization of those that are not successful.

153. Money and Banking. (4) A. Prerequisite: Economics 145. Clark
Principles of money and banking and the exemplifications of these principles in the monetary and banking history of the United States.

154. An Introduction to Commercial Law. (5) A.W.S. Hamblin
Brief examination of the Anglo-American legal heritage; survey of modern American law as it applies to the everyday life and experiences of the citizen (including contracts, negotiable instruments, property, and law as it relates to business associations). Designed for business.

155. General Insurance. (5) W. Prerequisite: Economics 145. Recommended: Business Management 120. Boyle
Life, health, accident, fire, property, and liability insurance, and principles of risk-bearing as they apply to each classification of the insurance field. (See also Business Management 155.)

156. Real Estate Finance and Development. (4) S. Prerequisite: Accounting 150 or Business Management 120. Grow

157. Commercial Law. (4) A. Andersen
Fundamental legal principles and institutions; the formation, operation, effect, and performance of contracts.

158. Commercial Law. (4) W. Sandgren

Laws governing (a) negotiable instruments and the rights and liabilities of parties thereto, (b) real and personal property, and (c) sales and bailments of personal property.

159. Commercial Law. (4) S. Sandgren

Laws governing relationships arising out of business associations: agency, partnerships, and corporations. Examination of the leading cases decided by the courts.

167. Government Finance. (5) W. Pond

The financing of federal, state, and local government. Includes a study of expenditures; principles and practices of budgeting; governmental revenues, with emphasis on problems of taxation; and public debt.

190, 191, 192. Problems in Business Management. (3-3-3) A.W.S. Staff

An inter-departmental course dealing with problems requiring analysis, decision, and action on the part of business executives at the operating level in management. The problems cut across subject matter lines and involve marketing, financial production, personnel, control and other issues all simultaneously pertinent to the development of realistic recommendations. Extensive use of business cases requiring student analysis, group discussions and written reports will form the principle basis for the conduct of the course.

201. Research in Business Finance. (2-5) A.W. Clark

254. Investments. (5) S. Prerequisites: 151; Accounting 150 or Industrial Management 120. Edwards

255. Research in Investments. (2) S. Edwards

268. Economics of Finance. (5) W. Edwards

(See Economics 268.)

300. Thesis for Master's Degree. Staff

Food and Nutrition

Professors: Pfund.
Assistant Professor: Bennion (chairman, SFC).
Instructors: M. Wilkinson, M. S. Jacobs.

The Department of Food and Nutrition aims to help the student understand the basic principles which underlie (1) the role played by food in the maintenance of optimum health and (2) the prepartion of food of high culinary and nutritive quality. Application of these principles is made through the planning, preparation, serving, and evaluation of attractive and nourishing family meals and through the preparation and evaluation of single items under experimentally controlled conditions. The economics of buying and the wise management of time and energy are emphasized.

Some skill in food preparation is acquired, but the student can attain the desired amount of skill only by repeated practice outside of the laboratory. Students are urged to gain experience at home in the planning, preparation, and serving of meals for the family. Limited opportunity for preparation of family meals under home conditions is provided. Some homemakers in the community cooperate with the students in one of the courses in meal planning to have one or two meals prepared in the home; the instructor serves as counselor.

Courses in this department provide background for training in such professional fields as hospital dietetics, public health nutrition, school lunch administration, test kitchen work, food demonstration, and research.

For majors in Food and Nutrition a minimum of 30 credit hours in the Department is required. For graduation from the College of Family Living these hours must be combined with enough credits in the College to total 60 hours. Included shall be:

	Credit Hours
Clothing & Textiles	4
Economics and Management of the Home	3
Housing and Design	3
Human Development and Family Relationships	6

Suggested Program for Majors

Freshman Year

	Credit Hours
Religion	6
English (determined by placement test)	9
Physical Education and Health	4
Chemistry 7, 8 (General Inorganic)	10

9 (Elementary Organic)	5
Bacteriology 21 (General)	4
Psychology 11 (General)	5
Art 10 (Theory & Practice of Design)	2
Food and Nutrition 10 (Introduction to Food & Nutrition)	4

Sophomore Year

Religion	6
Physics	3
Zoology 48 (Elementary Human Physiology)	5
Economics 1 (Principles & Problems)	5
Humanities & Aesthetics	7
Clothing & Textiles	4-6
Human Development & Family Relationships 40 (Child Development I)	3
41 (Observation in H.D.F.R. Lab.)	1
Food and Nutrition 105 (Fundamentals of Nutrition)	3
106 (Fundamentals of Nutrition Lab)	1
120 (Introduction to Exper. Cookery)	4
Electives (consider Chemistry 23)	5-7

Junior Year

Religion	6
History 80 (The American Heritage)	5
Economics & Management of Home 125 (Family Finance)	3
or 130 (Home Management)	3
Housing & Design	3
Human Development and Family Relationships 101 (Experience with Children)	3
or 160 (Achieving Success in Marriage)	3
or 161 (Family Relationships)	3
Family Living (Courses toward 60 credit hour requirement)	10-12
Food and Nutrition 140 (Menu Planning & Meal Service)	4
Food and Nutrition (Courses toward major)	6
Electives (Selected from list below or others)	6-8

Senior Year

Religion	6
English (Literature)	6
Food and Nutrition 175 (Readings in Nutrition)	2
or 180 (Readings in Food)	2
194 (Special Problems in Food)	1
or 195 (Special Problems in Nutrition)	1
Food and Nutrition (Courses toward major)	6
Electives (Selected from list below or others)	28-30

Food and Nutrition

110	Food Preparation	3
115*	Advanced Nutrition	3
122	Experimental Cookery	4
145*	Nutrition of Mother and Child	2
155*	Nutrition in Disease	3
160	Chemistry Applied to Food	2
162	Chemistry Applied to Food	2
170*	Quantity Food Preparation	5
172*	Food Management in Inst.	4

Students preparing for a dietetic internship must elect:
Food & Nutrition courses marked *

Accounting I (Elementary Accounting)	5
Chemistry 110 (Introduction to Physiological Chemistry)	5
Home Education 120 (Basic Classroom Procedures)	4
121 (Demonstration Experience in F & N)	1
Sociology or additional Psychology or Economics	4

For positions in hospital dietetics a postgraduate internship is required. Certain centers have been approved by the American Dietetic Association to give internships and training. Some provide training in food service administration in institutions other than hospitals, including residence halls and industrial and school cafeterias; some in food clinic work; and some in hospital dietetics. A list of these centers as printed by the American Dietetic Association is available in the office of the department chairman. These courses are ordinarily ten to twelve months in length.

The courses in this department are planned to be of value to both men and women.

Courses in other departments that might be of interest to students in Food and Nutrition: Bact. 169; Chem. 23; Hort. 12; Journalism 1, 111; Marketing 107.

Lower Division Courses

5. **Essentials of Nutrition.** (3) A.W. Primarily for students registered in colleges other than Family Living. Not to be elected by students who plan to elect Food and Nutrition 10. Staff

The basic concepts of human nutrition and their application in the achievement and maintenance of optimum health.

10. **Introductory Food and Nutrition.** (4) A.W.S. Three lectures and two two-hour laboratory periods. Open to all students. Bennion, Jacobs, M. Wilkinson

Laboratory experience in the preparation and use of common foods for family meals; their value in the maintenance of optimum health. Consideration of nutritive value in relation to the cost of food.

20. **Food and Nutrition.** (1) A.W.S. Two lectures and one two-hour laboratory period for one-half of the quarter. To be elected with Clothing and Textiles 20. Designed for men students; especially helpful to prospective missionaries. Jacobs, M. Wilkinson

Laboratory experience in the preparation of quick and easy nutritious meals. Food needed for the maintenance of optimum health. Ways of supplementing unavoidable "hit and miss eating to bring the intake to an adequate nutritional level. Preparation of an eating guide and recipes for "batching."

40. Menu Planning and Meal Service. (4) A.W.S. Three lectures and two two-hour laboratory periods. Prerequisite: Food and Nutrition 10. Majors in Food and Nutrition and students planning to teach homemaking should register for Food and Nutrition 140. Fee $3.00. M. Wilkinson

Problems involved in the selection of food for nutritionally adequate family meals with emphasis on those of low cost. The economics of buying and the organization and management of time and energy in the planning and preparation of meals. Experience in using various types of service.

50. Food Preservation. (2) A. Two two-hour periods. (Open to all students.)

Basic theory, and practice in the canning and freezing of fruits, vegetables, and meats. Comparison of preserved products with fresh products.

70. Food Management and Preparation for Large Groups. (2) A.S. Two lectures or one lecture and four hours of laboratory TBA. Open to men and women. Staff

Designed to give assistance in planning and to give some practical experience in the preparation of food for community groups. Emphasis on organization and management and adaptation to available facilities. Course is of particular interest to members or potential members of Church committees and to prospective teachers.

Upper Division Courses

105. Fundamentals of Nutrition. (3) A.S. Prerequisites: Food and Nutrition 10, Zoology 48, and Chemistry 3. Bennion

The basic concepts of human nutrition at all ages. The achievement and maintenance of optimum health for all family members. Budgeting of the food dollar in families of different income levels.

106. Fundamentals of Nutrition, Laboratory. (1) A.S. One two-hour period. Designed to accompany Food and Nutrition 105. Bennion

Experience involving a study of food portions, their cost, and their value in supplying body needs.

110. Food Preparation. (3) W.S. Prerequisite: Food and Nutrition 10. Staff

Different ways of preparing and using a wide variety of foods. The preparation of some foreign dishes.

115. Advanced Nutrition. (3) S. Prerequisites: Food and Nutrition 105 and Chemistry 4 or 110. Two lectures and three one-hour laboratory periods for animal feeding experiments. Bennion

A detailed study of body metabolism in relation to food intake, with emphasis on the role of specific nutrients in human nutrition.

120. Introduction to Experimental Cookery. (4) A.W. Three lectures and two two-hour laboratory periods. Prerequisites: Food and Nutrition 10 and Chemistry 3; Chemistry 4 or

110 recommended. Bennion

Hows and whys of food preparation. An understanding of the purpose of ingredients and the procedure used in the preparation of some common foods. Comparison of products prepared when the kind or proportion of ingredients or the method of manipulation is varied. (Formerly Food and Nutrition 112.)

122. **Experimental Cookery.** (4) Prerequisite: Food and Nutrition 120; Chemistry 4 or 110 recommended.

A continuation of Food and Nutrition 120. More emphasis upon the experimental techniques used in measuring the quality of food.

140. **Menu Planning and Meal Service.** (4) W.S. Three lectures and two two-hour laboratory periods. Prerequisites: Economics 1, Food and Nutrition 105 and 110 or 120. Economics and Management of the Home 125 is recommended. Fee $3.00. M. Wilkinson

The application of the fundamentals of nutrition to the selection of food for family meals of varying cost. The economics of food purchasing. Organization and management of time and energy in the planning and preparation of meals. Experience in the use of various types of service. (Formerly Food and Nutrition 111.)

145. **Nutrition of Mother and Child.** (2) S. Prerequisite: Food and Nutrition 5 or 105. M. Wilkinson

Application of the principles of nutrition to the feeding of expectant mothers, infants, and children. (Formerly Food and Nutrition 152.)

150. **Food Preservation.** (2) A. Prerequisites: Chemistry 2, Bacteriology 21, and Food and Nutrition 110 or 120. Staff

Underlying theory of and practice in the canning and freezing of fruits, vegetables, and meats; in the freezing of cooked products; jelly-making; and pickling. Comparison of products with fresh produce. (Formerly Food and Nutrition 109.)

155. **Nutrition in Disease.** (3) A. Two lectures, one two-hour laboratory period for the preparation of diets. Prerequisite: Food and Nutrition 105. Bennion

Metabolic changes in abnormal conditions. The use of therapeutic diets as an aid in the control of such conditions. (Formerly Food and Nutrition 155.)

160. **Chemistry Applied to Food.** (2) W. Prerequisite: Chemistry 2. Students in the College of Family Living must also have completed Food and Nutrition 120. Pfund

An understanding of quality in prepared food such as biscuits, muffins, other quick breads, candies, some frozen desserts, vegetables, and canned products. Practices followed in preparation are related to the physiochemical properties of gases, liquids, solids, and solutions; pH, hydrogen-ion concentration, and titratable acidity; and to the chemical reactions involved. (Formerly Food and Nutrition 113.)

161. **Chemistry Applied to Food, Laboratory.** (1) One two-hour period. Designed to accompany Food and Nutrition 160. Staff

162. **Chemistry Applied to Food.** (2) S. Prerequisite: Chemistry 4 or 110. Students in the College of Family Living must also have completed Food and Nutrition 120. Pfund

An understanding of quality in prepared food such as meat, fish, eggs and egg products, cheese dishes, gelatin dishes, bread, cake, and pastry. The composition of the food and the practices followed in its preparation are related to its colloidal nature and to the chemical and biochemical reactions involved. (Formerly Foods and Nutrition 114.)

163. **Chemistry Applied to Food, Laboratory.** (1) One two-hour period. Designed to accompany Food and Nutrition 162. Staff

170. **Quantity Food Preparation.** (5) W. Three three-hour periods. Prerequisites: Food and Nutrition 120 and 140. Staff

Practical experience in menu planning and food preparation for large groups. Use, operation, and maintenance of equipment.

172. **Food Management in Institutions.** (4) W. Three three-hour periods. Prerequisite or concurrent: Food and Nutrition 170. Staff

Administrative problems of food-service operation; management of financial and personnel problems, planning of institution kitchen, and selection of equipment. Field trips, observations, and practical experience to be arranged.

175. **Readings in Nutrition.** (2) A. Prerequisites: Food and Nutrition 115 and 145 or 155. Staff

180. **Readings in Food.** (2) A. Prerequisites: Food and Nutrition 120 and 160 or 162. Staff

194. **Special Problems in Food.** (TBA) Prerequisite: permission of the instructor and the chairman of the department. For students who have completed at least 15 hours in Food and Nutrition including Food and Nutrition 180.

Independent study of a special problem in food under the direction of an instructor.

195. **Special Problems in Nutrition.** (TBA) Prerequisite: permission of the instructor and the chairman of the department. For students who have completed at least 15 hours in Food and Nutrition, including 175. Independent study of a special problem in Nutrition under direction of an instructor.

French

(See courses in Modern and Classical Languages.)

Geography

Assistant Professor: Tuttle (chairman, 296 ESC), Reeder.
Instructors: Fisher, Layton.

The Department of Geography serves three classes of students: (1) professional major students; (2) non-professional major students, who wish to build a broad cultural education around a central interest in geography; (3) students majoring in other fields who wish some acquaintance with the contribution of geography to the understanding of the world and its problems.

For majors the department provides work in the following general fields of specialization: area analysis, cartography, regional planning.

The following courses in geography are required for a major:

Lower Division. Geography 11, 23, 75. Geology 1 and 2 or 11.

Upper Division. Geography 100, 110; at least two of the followting regional courses: 120, 130, 140, 150; at least two of the folowing systematic courses: 160, 165, 171 ,172, 173, 176; Geography Seminar 199; and electives in Geography to make a total of 45 hours.

Lower Division Courses

11. Introduction to Geography. (5) A.W.S. (GER-SS) Tuttle
A general survey of man's use of his natural environment including a study of landforms, climates, soil, natural resources.

12. Geography in World Affairs. (5) A.W.S. (GER-SS) Fisher
An introduction to world geography emphasizing the regions, resources, and economic activities of the major political areas of the world. This course is designed for students who desire to know something of how world affairs are affected by the way man occupies the earth, but who are able to devote only one course to geography.

21. Geography of Utah. (3) W. Layton
A detailed regional study of the state, with special emphasis on the cultural and economic relationships of Utah to the nation.

23. Economic Geography. (3) A.S. (GER-SS) Layton
A brief survey of the world's resource pattern. Origin, importance, and movement of major commodities in world affairs.

75. Cartography. (3) A. Two lectures and one two-hour laboratory. Layton
Maps as tools for teaching and research. Sources of maps and interpretation of map data.

Upper Division Courses

100. Geography of Climates. (3) A. Prerequisite: Consent of instructor. Tuttle

A study of climate, one of the most important of all the geographic factors, including climatic elements, controls, distribution, and classification.

103. Map Graphics. (3) W. Prerequisite: Consent of instructor. Layton

Maps as a means of recording information. Methods of illustrating various types of data and preparation of maps for reproduction and publications. One lecture and two two-hour laboratories.

105. Physiography of North America. (3) S. Prerequisite: Consent of instructor. Tuttle

A study of the characteristics of the landforms of the continent.

110. North America. (5) A. (GER-SS) Tuttle

The geography of the United States, Alaska, and Canada, including the study of climates, landforms, natural resources, agriculture, and industries.

120. Latin America. (5) A. Prerequisite: Consent of instructor. Layton

Physical and cultural landscapes of the geographic regions of South and Central America.

130. Europe. (5) A. (GER-SS) Fisher

A study of the land and how man is utilizing the natural and human resources of Europe. Specific emphasis will be placed on the human geography of the major political regions.

140. Asia. (5) W. Prerequisite: Consent of instructor. Tuttle

The geography of one-third of the earth and two-thirds of its people. A study of man's use of his natural environment on the world's largest continent.

150. Africa. (5) W. Fisher

A systematic regional treatment of the physical, economic, political, and cultural geography of Africa.

160. Industrial Geography. (5) S. Layton

An analysis of major industries in the United States with regard to location of raw materials, present technology, and markets.

165. Urban Geography. (3) W. Layton

A survey of the location, development, and functions of various urban areas.

171. Foundations of National Power (The Americas). (3) A. Fisher

(See Political Science 171.)

172. Foundations of National Power (Europe). (3) W. Fisher

(See Political Science 172.)

173. **Foundations of National Power (Near and Middle East).** (3) S. Reeder
(See Political Science 173.)

176. **Political Geography.** (3) S. Prerequisite: Consent of instructor. Fisher
A study of location, human and natural resources, economics, politics, and other factors which contribute to the foundation of national power for the world's major areas. This course should be of special interest to students in geography, history, political science, and education. (See also Political Science 176.)

195. **Readings.** (1) A.W.S. Staff
For majors only. May be repeated for a total of three hours.

199. **Seminar.** (1) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

205, **206, 207. Research.** (1-2) A.W.S. Staff
For majors only.

211. **United States.** (3) W. Tuttle

221. **South America.** (3) W. Layton

222. **Caribbean Area.** (3) S. Layton

231. **Western Europe and the Mediterranean.** (3) A. Fisher

232. **Eastern Europe and the U.S.S.R.** (3) S. Tuttle

241. **Orient.** (3) S. Tuttle

263. **Historical Geography of the United States.** (3) S. Fisher
(See History 263.)

290. **Geography of Underdeveloped Areas.** (3) W. Fisher

295. **Readings.** (1) A.W.S. Staff
May be repeated for a total of three hours. For majors only.

299. **Graduate Seminar.** (1) A.W.S. Staff

300. **Thesis for Master's Degree.** Staff

Geological Engineering Science

(See courses in **Engineering Sciences.**)

Geology

Professors: Bissell (chairman, 291 ESC), Farnsworth, G. H. Hansen.

Associate Professors: Bullock, Hintze.

Assistant Professors: Rigby, Bushman.

Instructors: Hyatt, Lewis, Brimhall.

All students majoring in Geology should complete the following course or its equivalent to obtain the bachelor's degree; these courses which total 46 hours are required: Geology 11, 12, 13, 117, 118 119, 128, 130, 160, 171, 180. Double-starred courses are recommended but not required. From the single-starred courses the Senior may choose a total of 10 hours (in excess of graduation requirements) to apply toward Graduate credit.

It is expected that a student intending to major in Geology shall have met the general entrance requirements of the College of Physical and Engineering Sciences as stated on page 455 of this catalog.

Freshman Year	A	W	S
Religion	2	2	2
Physical Education and Health	1	1	2
English 1, 2, 3 or	3	3	3
12, 13		3	3
Mathematics 11, 12, 13, or 152	5	5	3-5
Geology 11, 12, 13 or Chemistry 14, 15, 16	5	5	5
Total Hours	16	16	17

Sophomore Year	A	W	S
Religion	2	2	2
Chemistry 14, 15, 16 or Geology 11, 12, 13	5	5	5
Geology 117, 118, 119	3	3	3
**Mathematics 91, 92 93	4	4	4
Biological & Social Science Groups	5	4	5
Humanities and Aesthetics Groups	3	3	3
Total Hours	18	17	18

Without starred courses

Junior Year	A	W	S
Religion	2	2	2
Physics 41, 42, 43 or 31, 32, 33	5	5	5
Geology 128, **129, **115	5	4	3
Biological & Social Science groups, or Geology and other options (if groups are filled)	5	6	7
Total Hours	17	17	17

Senior Year	A	W	S
Religion	2	2	2
Geology 171, **172, 130	3	3	3
Geology **140, **141, 180	3	3	5
Electives (and groups not filled	9	9	7
Total Hours	17	17	17
Summer School Geology 160			6

If Calculus is not elected by the student, these courses are recommended in the Sophomore year: Botany 2; History 70; Geography 23, 75; Archaeology 1; Zoology 11 is required. If Calculus is elected, these groups can be filled during the Senior year.

For Geological Engineering Science, see Department of Engineering Sciences.

Lower Division Courses

PHYSICAL SCIENCE

1, 2, 3. **Concepts of Physical Science.** (3-3-3) A.W.S. (GER-PS) Blackham

A penetrating application of the methods of Science to a relatively few basic topics. This course starts in the Autumn quarter and continues through the year. All three courses must be taken to receive credit which will meet the requirements for general education in the physical sciences.

GEOLOGY

1. **Introduction to Geology.** (3) A.W.S. (GER-PS). Lectures M.W.F. and laboratory by demonstration, plus field trips including a two-day trip through central and southern Utah (Bryce and Zion Canyons, etc.). May be taken with or without Geology 2. Staff

A cultural course dealing with physical geology. Designed for the non-science student who desires a broad introduction to the earth science.

2. **Introduction to Geology Laboratory.** (1) A.W.S. (GER-PS) One two-hour laboratory section per week. Designed to accompany Geology 1 if student desires, and should not be taken separately unless student has completed Geology 1 (or equivalent) in a previous quarter. Staff

Laboratory exercises (and some field trips) in which the common rock-forming and ore minerals, and a few maps, will be studied.

3. **Life of the Past.** (3) A.W.S. (GER-PS). Lectures M.W.F. and laboratory by demonstration, plus field trips including a two-day trip through central and southern Utah (Bryce and Zion Canyons, etc.). No prerequisite.

A cultural non-technical course in historical geology. Designed for the students of the Arts, Humanities, Biology, Education, and others. This will deal with the life events of the geologic past.

11. **Physical Geology.** (5) A.W.S. (GER-PS) Four lectures and one two-hour laboratory section per week. Staff

A course covering the field of physical geology. The common rock-forming and ore minerals and common rocks will be studied in the laboratory. Required of geology majors.

12. **Historical Geology.** (5) A.W.S. Four lectures and one two-hour laboratory section per week. Prerequisite: Geology 1 or 11. Staff

A continuation of Geology 11, constituting a study of the history of the earth and the evolution of the life forms. Representative fossils will be studied in the laboratory.

13. **Introductory Field Geology.** (5) S. Three lectures and field work Thursday 11:00 a.m. to 6:00 p.m., and some Saturdays. Staff

A continuation of Geology 12, involving the principles of stratigraphy, introduction to paleontology, and applied physical and historical geology. For geology majors.

91. **Geology for Engineers.** (4) A.W.S. Three lectures and one two-hour laboratory section per week. Staff

A study of geologic principles which relate to engineering practice. (See Geological Engineering 91.)

92. **Historical Geology.** (4) W. Three lectures and one two-hour laboratory section per week. Staff

A continuation of Geology 91 for Geological Engineers. (See Geological Engineering 92.)

Upper Division Courses

106. **Geomorphology.*** (5) S. Four lectures and one two-hour laboratory section per week. Staff

A study of the processes at work on the land surface and the topographic forms produced by them.

107. **Soil Geology.*** (3) S. Two lectures and one two-hour laboratory section per week. Farnsworth

(See Agronomy 107.)

110. **Materials of Ceramics.** (3) (Not given this year.) Hyatt

Designed to acquaint students of both fine art and industrial art with the clays and other materials used in pottery, porcelain, and other ceramic whitewares, as well as the methods of reproducing ceramic objects. All steps involved in production of ceramic objects are given to aid both amateur hobbyist and commercial ceramist.

112. **Introduction to the Study of Minerals and Rocks.** (3) A.W.S. No prerequisite: Lectures M.W.F. and laboratory by demonstration. Staff

An introductory course in the study of minerals and rocks. Designed for students other than Geology majors; of particular value to students of the Arts, Humanities, Biology, and Education and others desirous of learning of the earth's raw materials, collecting minerals, ores, rocks, and general amateur collecting.

115. **Geologic Illustration.*** (3) S. Prerequisites: Mathematics 12. Geology 128. Staff

Office practice in the planning and preparation of geologic maps, structure sections, and other geologic illustrations for professional reports.

117. **Introductory Mineralogy.** (3) A. Two lectures and one two-hour laboratory section per week. Bullock

An introductory study of the natural occurrence of minerals; their chemical composition and uses; and their important physical properties, including elementary crystallography. Emphasis will be placed upon the rock-forming minerals.

118. **Economic Mineralogy.** (3) W. Two lectures and one two-hour laboratory section per week. Prerequisites: Chemistry 16; Geology 117. Bullock

(A continuation of Geology 117.)

119. **Rocks.** (3) S. Two lectures and one two-hour laboratory section per week. Prerequisite: Geology 118. Staff

Megascopic study and classification of the important igneous, sedimentary, and metamorphic rocks.

125. **Gemology.** (2) W. Staff

Lecture and demonstration of the properties, history, and lore of the common and classic gems and gem material.

128. **Structural Geology.** (5) A. Prerequisites: Geology 119; Mathematics 12. Staff

Structural features of the earth's crust and the forces which have produced these structures; interpretation of geologic maps and mineral fragments.

129. **Map and Photo Interpretation.*** (4) W. Prerequisite: Geology 128. Staff

Use and interpretation of maps and aerial photographs.

130. **Geological Field Methods.** (3) S. Prerequisite: Geology 129. Staff

Training in the methods of geological field work; use of the Brunton Compass, hand level, altimeters, steel tape, stereoscope, aerial photographs. Emphasis is placed on the use of the plane-table and alidade in topographic mapping for the solution of geologic problems. (See Geological Engineering 132.)

140. **Petrographic Mineralogy.** (3) W. Prerequisite: Geology 118. Bullock

An introduction to optical identification of minerals from thin sections and mineral fragments.

141. **Petrography.** (3) S. Prerequisite: Geology 140. Bullock

A description and classification of rocks, including laboratory studies of thin sections of rocks.

150. **Introduction to Applied Geophysics.*** (3) W. Prerequisite: Consent of instructor. Brimhall

Outline of methods of geophysical prospecting in mining, petroleum ,and engineering geology.

151. **Geophysical Techniques.*** (3) S. A continuation of 150. Brimhall

Practical application of geophysical equipment, with particular emphasis on field work.

160. Summer Field Course. (6) (Summer only. See Summer Catalog.) Prerequisite: Geology 130. Staff

A six weeks course in geological mapping. Emphasis is placed on the quantitative solution to geological problems in engineering, petroleum, and mining. (See Geological Engineering 160.)

171. Introduction to Paleontology. (3) W. Two lectures and one two-hour laboratory section per week. Prerequisite: Geology 13. Rigby

Systematic study of the animal kingdom, and an introduction to the study of the structure, more of life, distribution and development of the animals of the past ages. Typical fossils from each group will be studied.

172. Principles of Sedimentology. (3) W. Prerequisite: Geology 140. Bushman

An analytical study of sediments, their origin, constitution, and relations. (See Geological Engineering 172.)

180. Principles of Economic Geology. (5) S. Prerequisite: Geology 128. Staff

A study of the origin, mode of occurrence, classification, and use of the more important metallic ores and nonmetallic mineral products.

196. Readings in Geology. (1-6. No more than one hour any quarter.) A.W.S. Staff

Open only to geology majors during their junior and senior years.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201, 202. Research. (1-3, 1-3) A.W.S. Staff

Special problems in the field of geology designed for students prepared to do original work.

203. Advanced General Geology. (3) A. Prerequisite: Geology 160. Bushman

204. Precambrian and Paleozoic Stratigraphy. (3) W. Continuation of 203. Staff

205. Mezozoic and Cenozoic Stratigraphy. (3) S. Continuation of 204. Staff

210. Geology of Utah. (3) A. Hansen

217. Geochemistry. (3) A. Prerequisite: Geology 118 and Chemistry 16. Staff

218. Geochemical Techniques. (3) W. Prerequisite: 217. Staff

219. **Engineering Geology.** (4) S. Staff

230. **Problems in Structural Geology.** (1-5) A.W.S. Staff

231. **Geology of the U.S.** (5) W. Hansen

250. **Optical Mineralogy.** (5) A. Prerequisite: Geology 118. Bullock

251. **Petrography and Petrofabrics.** (3-5) W. Prerequisite: Geology 140 or 250. Bullock

252. **Igneous and Metamorphic Petrology.** (5) S. Prerequisite: Geology 128. Bullock

260, 261, 262. **Advanced Field Geology.** (1-5, 1-5, 1-5) A.W.S. Staff

269. **Micropaleontology.** (3) W. Prerequisite: Geology 12. Rigby

270. **Vertebrate Paleontology.** (3) W. Prerequisite: Geology 12. Rigby

271. **Invertebrate Paleontology.** (3-5) S. Prerequisite: Geology 160. Rigby

272. **Biostratigraphy.** (3) W. Prerequisite: Geology 171. Rigby

273. **Sedimentology.** (3) A. Prerequisite: Geology 172. Bissell

274. **Sedimentary Petrology.** (3) W. Prerequisite: Geology 172. Bissell

275. **Sedimentary Petrography.** (2) W. Prerequisite: Geology 140. Bissell

276. **Sedimentation and Stratigraphy.** (3-5) S. Bissell

279. **Oil Field Development (See Geol. Engr. 279).** (3) A. Prerequisite: Geology 128. Lewis

280. **Oil Field Producation (See Geol. Engr. 280).** (2) W. Prerequisite: Geology 279. Lewis

277. **Petroleum Geology.** (5) S. Prerequisite: Geology 128. Hansen

278. **Subsurface Geology.** (3) W. Prerequisite: Geology 128. Lewis

279. **Oil Field Development.** (3) A. Prerequisite: Geology 128. (See Geol. Engr. 279.) Lewis

280. **Oil Field Production.** (3) A. Prerequisite: Geology 279. (See Geol. Engr. 280.) Lewis

281. **Metalliferous Deposits.** (5) S. Prerequisite: Geology 180. Staff

282. **Mining Geology.** (See Geol. Engr. 282). (3) A. Prerequisite: Geology 281. Staff

283. **Non-Metalliferous Deposits.** (3) W. Prerequisite: Geology 180. Staff

284. Geology of Ceramic Raw Materials. (3) S. Hyatt

285. Ground Water. (5) A. Prerequisite: Geology 128. Hansen

291, 292, 293. Seminar. (1-1-1) A.W.S. Staff

296. Readings in Geology. (1) A.W.S. Staff
Total of six registrations permitted.

300. Thesis for Master's Degree. (1-6) Staff

German

(See courses in Modern and Classical Languages)

Graphics

(See courses in Engineering Sciences and in Industrial Art and Drawing.)

Greek

(See courses in Modern and Classical Languages and in Religion.)

Health Education and Safety

Professors: Allen, Barlow, J. V. Beck, C. J. Hart, Nash, Nicholes.

Associate Professor: V. W. Larsen.

Assistant Professors: Robison, Soffe, C. Taylor.

Instructors: Bangerter, Barney, Geddes (chairman, 216 SFH).

HEALTH EDUCATION MAJOR

Students desiring to major in Health will take the following courses: Health 1, 21, 50, 110, 133, 143, 157, 160, 165, 166, 195 along with certain other courses outlined by the major department. See page 434 for state certification in composite major in Physical Education, Health Education, and Recreation.

HEALTH EDUCATION MINOR

Students may minor in Health Education by completing the following courses: 21, 45, 50, 143, 157, 160, 195, and Zoology 11.

(See Department Chairman for copy of complete 4-year course of study in Health Education.)

Lower Division Courses

1. **Personal Hygiene.** (1) A.W.S. Two lectures per week. Robison, Barney

This course is required of all freshman students. May be taken any quarter during the freshman year. The course is designed to present in a popular manner problems concerning personal hygiene and proper health habits.

21. **Bacteriology.** (4) A.W.S. (See Bacteriology 21.) J. V. Beck

45. **Vertebrate Anatomy and Physiology.** (5) A.W.S. Three lectures and two two-hour laboratory periods per week. H. Nicholes

Required of majors in physical education. (See also Zoology 45.)

50. **Elementary Nutrition.** (3) A.W.S. Barlow

The study of the fundamentals of nutrition and the use of the diet in maintaining physical fitness. Open to men and women. Required of majors in physical education. (See Foods 50.)

Upper Division Courses

110. **Studies in Alcohol Education.** (2) (Not given this year.) Two periods each week.

The nature and effects of alcohol on the human organism. Consideration will be given the effects of alcohol on heredity, the developing cell, body resistance, longevity, morbidity, mentality, and man's conduct.

120. Methods and Curriculum. (4) (Not given this year)

The planning of units of health instruction based on pupil needs, including health information for classroom on the elementary-school and high-school levels. A study of source materials for the teacher and learner.

130. Clinical Psychology. (3) W. Prerequisite: Psychology 11 or equivalent. Allen

A consideration of diagnostic or remedial procedures for personality and behavior difficulties. Recommended for teachers of health.

131. Health Observations in Schools. (2) (Not given this year)

Teaching ways of observing normal and abnormal body functions. Recognition of the early symptoms of certain communicable diseases is considered. Aim is to equip the physical education and classroom teacher with knowledge to aid in the daily observation of school children and to recognize deviation from the normal.

132. School Health Services. (Not given this year)

Considers desirable school health services and the functions and relationships to public education and the education law. The coordination of the activities in school health services with those in community programs is emphasized. Specifically designed for health teachers and school dental hygiene teachers.

133.* Administration of School Health Program. (3) S. Nash

The problems of the School Health Coordinator and his place in the administrative structure of the school—secondary or elementary. Duties and responsibilities of the School Health Director in coordinating the offerings in science, social science, homemaking, and other areas in the light of a total health program. The membership and responsibility of the School Health Coordinating Committee.

138. Observation and Student Teaching in Health Instruction. (4) (Not given this year)

This is a course in student teaching under supervision. One hour of daily participation in classroom activities throughout the quarter and responsible class instruction will be required. In addition, study of special methods of teaching in Health Education will be required by the supervising teacher on two days each week at 4:00 p.m.

139. Secondary Student Teaching in Health Education. (6) (Not given this year)

This is a continuation of Health 138. It is designed to place the student teacher in a secondary school for a full quarter on a half-day basis. Class contact with faculty and student participation on committees and in extra-curricular activities and much responsible student teaching is expected.

An opportunity to participate in health education programs carried on by various official and voluntary agencies. This is especially valuable for those planning to affiliate with a health agency. This is also of interest to the health instruction teacher who desires community experience.

143. **Mental Hygiene.** (3) S. Prerequisite: Psychology 11 or equivalent. C. Taylor
(See Psychology 143.)

157. **Materials and Methods in Safety Education.** (2) A. Bangerter
The course will emphasize school safety, safety in the home, bicycle and traffic safety, and other areas of safety of concern to the educator. (See Instruction 171.)

158. **Health Education for Teachers.** (3) A.W.S. Robison
The fundamental principles of health and their application to school and home situations. Designed especially for those who are preparing to teach in the public school. (See Instruction 170.)

160. **Sanitation and Public Health.** (3) S. Larsen
(See Bacteriology 160.)

165. **General Physiology.** (5) W. Three lectures, two two-hour laboratory periods per week. Prerequisite: Zoology 11. A course in organic chemistry is recommended. H. Nicholes
(See Zoology 165.)

166. **Human Physiology.** (5) S. Three lectures, two two-hour laboratory periods per week. Prerequisite: Zoology 13, 165. H. Nicholes
(See Zoology 166.)

195. **First Aid.** (2) A. R. Kimball
Principles and practices in first aid treatment of injuries. Those successfully completing the course will be given the American Red Cross First Aid Certificate.

Graduate Courses

For regulations governing study beyond the bachelor's degree see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

Prerequisites for admission to graduate study: Undergraduate degree or equivalent in field and acceptance by Department Graduate Committee.

224. **Evaluation and Selection of School Health Material.** (3) Geddes

230. **Seminar in Administration.** (3) Staff

235. **Basic Relationships.** (5) W. Staff
A course to integrate the College offerings in Recreation Education, Physical and Health Education, Youth Leadership, Scouting, The Dance, and Athletics.

292. **Research in Health Education.** (5) A. Geddes

294. **Readings in Health Education.** (2) A.W.S. Geddes

300. **Thesis for Master's Degree.** Staff

301. **Field Project.** (2-6) Staff

History

Professors: L. R. Hafen, Jensen (emeritus), Nibley, R. B. Swensen.

Associate Professors: Poll (chairman, 254 McK), Caldwell S. L. Grow.

Assistant Professors: Hunt, G. O. Larson, Reeder, Tyler.

Instructors: Davies, Fielding, Fisher, Jones, Mabey, Riggs.

REQUIREMENTS FOR MAJOR IN HISTORY

A History major requires the completion of 45 hours of work in this field. History 10, 11; 20, 21 or 180, 181, 182; 188, 189, and 190 are required courses. The remaining elective hours should be selected in consultation with the department chairman. A comprehensive examination is given to all majors in the second quarter of the senior year.

A student deciding to major in History should immediately consult the chairman of the department, who will assist in the selection of the minor field.

History is one of the subjects comprising the composite major in social science. (See College of Education.)

AMERICAN HISTORY AND GOVERNMENT REQUIREMENT

Satisfactory completion of course work in American History and Government is required of all candidates for a bachelor's degree from any of the colleges of the University. History 70, History 80, or any of the following combinations of courses satisfies this requirement:

History 20 and 21.
History 20 and Political Science 10.
History 21 and Political Science 10.
History 74 and Political Science 10.
History 180, 181, 182.

Students majoring or minoring in history should **not** take History 70 or 80.

A student in the department of Economics, Finance and Banking, Journalism, Political Science, or Instruction (Social Sciences) should elect the combination appropriate to his field.

Transfer students desiring to offer work from other institutions to satisfy this requirement should consult the chairman of the History Department for clearance.

History 70 or 80 is credited toward the fulfillment of the Social Science group requirement. Other courses taken to satisfy the American History and Government requirement also are credited toward group requirements, the history courses applying in the Humanities group and the political science in the Social Science group.

Lower Division Courses

5. **Current Affairs.** (2) A.W.S. Poll
A survey of current events, with special attention to their historical background and present implications in economcs, sociology, politics, and international relations. (See Political Science 5.)

10. **World Civilization. I.** (5) A.W.S. (GER-HA) Swensen
A survey of the beginnings of the major world civilizations and their development to approximately 1500 A.D., with emphasis on Europe.

11. **World Civilization. II.** (5) A.W.S. (GER-HA) Mabey
A survey of the development of the major world civilizations since 1500, with emphasis on Europe.

20. **The United States to 1865.** (5) A.W.S. (GER-HA) Staff
The era of discovery and colonization, the American Revolution, the Constitution and the development of national government, foreign affairs, westward expansion, sectionalism, and the Civil War.

21. **The United States since 1865.** (5) A.W.S. (GER-HA) Staff
Consequences of the Civil War and Reconstruction, industrialization and urbanization, American imperialism, the period of reform, the first and second World Wars, the New Deal, current problems.

50. **Latin American Civilization.** (5) S. (GER-HA) Hunt
A survey of the colonization of Latin America and the subsequent development of the major political, economic, social and cultural institutions.

70. **The American Heritage.** (5) A.W.S. (GER-SS) Staff
The growth of the United States under the Constitution, with emphasis upon the English political and legal background, the winning of independence, the objectives and accomplishments of the founders of the republic, the testing of the Union in the period culminating in the Civil War, and the adaptation of the constitutional system to America's role as an industrial and world power.

74. **Economic and Financial History of the United States.** (5) A.W.S. (GER-HA) Davies
(See Economics 74.)

80. **The American Heritage.** (5) A.W.S. (GER-SS) Staff
Advanced sections of the basic course in American history and government (See History 70). Enrollment determined by results of freshman aptitude, achievement tests, and by college standing. No student who has had History 70 should enroll in History 80.

Upper Division Courses

100. **Early Oriental History.** (3) A. (GER-HA; GER-R) Nibley
A study of ancient civilization as it developed in Egypt,

Babylonia, Assyria, Arabia, Persia, and Palestine. This course is helpful to those who are especially interested in the rise of the Jewish religion and scriptures.

101. **History of the Far East.** (3) W.(GER-HA) (1957-8 and alternate years). Swensen
A survey of the development of the civilizations of the eastern Oriental countries of India, China, and Japan. Emphasis upon their unique cultural achievements and the significant trends of the present.

103. **Literary History of the Greeks.** (3) W. Nibley
Greek life and thought as illustrated in the writings of classical authors.

104. **History of Greece.** (5) W. (GER-HA) Swensen
The political, economic, social, and intellectual development of the Greek people from their migration into the Aegean area to the end of the Hellenistic Age.

107. **Roman History to 31 B.C.** (3) (1956-7 and alternate years) Swensen
A study of Roman history from the monarchical period to the end of the Republic. Emphasis upon the growth of the political principles and constitutional structures of the Romans which are still significant, and the career of Caesar.

108. **History of the Roman Empire, 31 B.C. to 493 A.D.** (3) (GER-HA) (1956-7 and alternate years) Swensen
A study of the factors and institutions which were instrumental in the development of the Roman Empire, the causes of its decline, the unique features of its civilization, and the rise and expansion of Christianity.

109. **Literary History of the Roman Empire.** (3) S. Nibley
Study of the decline of ancient civilization, its causes, symptoms, and attendant social and cultural developments, as reflected in contemporary writings. To 1453.

111. **Medieval Germany and the Papacy.** (3) (1957-8 and alternate years) Swensen
The growth and conflicts of the Holy Roman Empire of Germany and the Roman Catholic Church, the causes of the breakdown of the former and the strength of the latter, their distinctive cultural and institutional achievements.

112. **The Renaissance and Reformation.** (3) S. (GER-HA; GER-R) Swensen
A study of the cultural trends and developments of the Renaissance, the background and movements of the Reformation together with the Catholic reaction in the Counter-Reformation.

116. **History of Western Civilization. I.** (3) Staff
Limited to participants in the B.Y.U. Travel-Study Program.

117. History of Western Civilization. II. (3) Staff
Limited to participants in the B.Y.U. Travel-Study Program.

123. History of Europe, 1914-1954. (3) A. (GER-HA) Mabey
The political, economic, and social history of contemporary Europe, with emphasis upon international relations and the background of current affairs.

130. History of Russia to 1900. (3) (1957-8 and alternate years). Mabey

131. History of Russia Since 1900. (3) S. (GER-HA) Mabey
Survey of the main trends in Russian development, with emphasis upon those factors which contribute to an understanding of the U.S.S.R. today. Either quarter may be taken independently.

140. History of England to 1714. (3) A. (GER-HA) Mabey
A study of the origin and development of the English people and English institutions from the earliest times to 1714. Special consideration is given to the Tudor period and to the evolution of parliamentary sovereignty.

141. History of England Since 1714. (3) W. (GER-HA) Mabey
Development of cabinet government; economic and humanitarian movements; growth of the empire and the relation of Britain to her colonies and dominions; First and Second World Wars; post-war problems.

148. History and Government of Canada. (3) (1957-8 and alternate years). Grow
A study of the founding and development of Canada to the present day.

153. History of Mexico. (3) A. (1956-7 and alternate years.) Hunt
Survey of conquest and growth under Spain; winning of independence; emergence and development as a modern nation.

157. History of Modern China. (3) A. Staff
Survey of the major epochs of Chinese history, with emphasis on the events of the 20th century.

158. Culture of the Orient. (3) W. Staff
Introduction to some of the social and cultural characteristics of the peoples of the Far East.

160. History of the American Frontier. (3) S. (GER-HA) Hafen
Significance of the frontier in the development of the United States; the Anglo-American advance to the Mississippi River and the exploration and development of the Southwest, the Great Basin, and the Pacific West.

161. The Indian in American History. (3) (1957-8 and alternate years). Hafen
Relations between the Europeans and the Indians, conflict and gradual cultural exchange, the Indian as a citizen in the American nation today.

162. **The American Westward Movement to 1825.** (5) A. Hafen
The exploration, settlement, and development of the Trans-Mississippi West through the first quarter of the 19th Century, including the Spanish and French as well as the Anglo-American colonization activity.

163. **The American Westward Movement after 1825.** (5) W. Hafen
The exploration, settlement, and development of the Trans-Mississippi West from 1825 to the passing of the frontier in the late nineteenth century.

166. **History of Utah.** (3) A.W.S. (GER-HA; GER-R) Poll, Larson
The early history of the Great Basin; the Mormon migration; economic, social, and political developments; problems of territorial government and the attainment of statehood.

172. **The American Revolution and the Confederation.** (3) A. (GER-HA) Fielding
Causes and character of the Revolution and analysis of the men, events and ideas which produced the Constitution.

173. **Intellectual and Cultural History of the United States.** (3) W. (GER-HA) Fielding
Survey of changes in American life since colonial times, emphasizing intellectual and cultural achievements and the impact of industrialization and urbanization.

175. **American Constitutional Development.** (3) W. Prerequisite: Political Science 10. Jensen
The history and development of the Constitution of the United States, its fundamental provisions, their interpretation and their application in the functioning of the American system of government. (See Political Science 185.)

176. **History of American Political Thought.** (3) S. Jensen
An examination and interpretation of American political ideas from the colonial period to the present, with an analysis of their influence upon the development of American history and government. (See Political Science 106.)

179. **Contemporary United States History.** (3) A. Prerequisite: History 21 or 182. Poll
Designed to facilitate understanding of current affairs. Emphasis placed upon the nature of the depression of 1929 and the New Deal, the diplomacy of isolationism and the Second World War, and post-war problems.

180. **The United States in the 17th and 18th Centuries.** (3) A. Prerequisite: History 10, 11. Hafen
A course for upper division students majoring in education. Emphasis upon interpretation methods, and materials useful in teaching American History in secondary schools.

181. **The United States in the 19th Century.** (3) W. Prerequisite: History 180. Fielding
Continuation of History 180.

182. **The United States in the 20th Century.** (3) S. Prerequisite: History 181. Poll
Continuation of History 181.

184. **History of American Foreign Relations.** (5) S. Hunt
The role of the United States in international affairs from colonial times to the present. Emphasis will be placed upon the diplomacy of expansion, the Monroe Doctrine, and problems of the Twentieth Century.

188. **Historiography.** (3) A. (Recommended for the junior year.) Swensen
A course in the fundamental problems and types of historical analysis and interpretation. Attention given to various philosophies of history and the work of outstanding European and American historians. Required of all history majors.

189. **Methods of Historical Research and Writing.** (3) W.S. (Recommended for the junior year. Staff
Historical sources; the collection and evaluation of material; methods of note-taking; use of micro-film and other special techniques; organization of a historical paper; footnotes and bibliography.

190. **Senior Seminar.** (2) A.W.S. Staff
Research seminar required of all majors in history.

191. **Historical Classics.** (3) S. Staff
Study of selected masterpieces of historical writing.

198. **Special Readings in History.** (Arr.) Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

206. **History of Greek Thought.** (3) (1957-8 and alternate years) Swensen

212. **History of Medieval Thought.** (3) W. (1956-7 and alternate years) Swensen

221. **Problems in English History.** (3) (1957-8 and alternate years) Mabey

245. **Problems in English History.** (3) (1957-8 and alternate years) Mabey

256. **History of the Southwestern United States.** (3) (1957-8 and alternate years) Hafen

263. **Historical Geography of the United States.** (3) (1957-8 and alternate years) Fisher

270. **Colonial American History to 1688.** (3) A. (1956-7 and alternate years) Fielding

271. **Colonial American History, 1688-1763.** (3) (1957-8 and alternate years) Fielding

275. **History of the United States, 1789-1815.** (3) S. (1956-7 and alternate years) Hunt

276. **History of the United States, 1815-1850.** (3) S. (1956-7 and alternate years) Hafen

277. **History of the United States, 1850-1877.** (3) (1957-8 and alternate years) Poll

278. **United States Economic History, 1865-1917.** (3) W. (1956-7 and alternate years) Poll

279. **United States Foreign Relations, 1898-1921.** (3) (1957-8 and alternate years) Hunt

286. **Constitutional History of the United States.** (3) A. Prerequisites: History 20, 21, or the equivalent. Pre-law students by permission of instructor. Jensen

288. **Historiography.** (3) Summer only. Swensen

289. **Methods of Historical Research and Writing.** (3) Summer only. Staff

294. **Seminar in Ancient History.** (2) S. Swensen

295. **Seminar in Western History.** (2) W. Hafen

296. **Seminar in United States History.** (2) A. Fielding

297. **Seminar in Utah History.** (2) S. Poll

298. **Special Readings in History.** (1-2) A.W.S. Staff

300. **Thesis for Master's Degree.** (4-6) A.W.S. Staff

Home Arts

(See courses in Housing and Design)

Home Economics

(See College of Famiy Living)

Homemaking Education

Assistant Professor: Poulsen (Chairman, SFC).

Instructors: Jewell*, M. S. Jacobs.

The objective of the Department of Homemaking Education is two-fold: to help students become professionally minded and to provide instruction that will lead to certification for teaching. For certification a bachelors degree in arts or science from an accredited college and a teaching certificate from the State Department of Public Instruction are required.

Prospective teachers should know that the comprehensive objectives of teaching homemaking are to help the girls and boys in the secondary schools meet their needs as individuals and in relation to their family and community groups. The teacher's professional qualifications include: enthusiasm for teaching, knowledge and use of social skills, a well groomed personal appearance, and a wholesome acceptance of professional responsibilities.

The following program will meet the State Department of Public Instruction requirements for certification of teaching in the secondary schools:

I. A minimum of 60 credit hours selected from among the subject matter departments within the College of Family Living. The College suggests 68 to 70 hours, to include the courses listed under (a) and 10 credit hours selected from among those listed under (b):

a. Clothing and Textiles 10, 15, 25, 60 or 170, 135, 175.
Food and Nutrition 10, 105, 106, 120, 140.
Economics and Management of the Home 125, 130, 170.
Housing and Design 160, 175.
Human Development and Family Relationships 40, 41, 80, 101, 161.

b. An additional ten credit hours elected from the following:
Clothing and Textiles 145.
Food and Nutrition 145, 150, 160.
Housing and Design 20, 145.
Human Development and Family Relationships 85, 160, 162 ,165.

II. A minimum of 10 credit hours each in Biological Science, Humanities and Aesthetics, Physical Science and Social Science. The University Requirements are higher (see page 87).

Biological Science 10 hours
    Bacteriology 21
    Health 1
    Zoology 48
Human. & Aesthetics 15 hours
    Art 10
    Other Art (3), Literature (6), Music, Philosophy, **Speech.**

Physical Science 12 hours
    Chemistry 2
    Chemistry 3
    Physics
Social Science 15 hours
    Economics 1
    History 70 or 80
    Psychology 11

III. A minimum of 35 credit hours in education: (a) 17 credit hours in Homemaking Education; (b) 18 credit hours in the College of Education.

a. Homemaking Education 120, 123, 138, 139.

b. Education; Instruction 170, 185.
Educational Administration 100.
Educational Research and Service 101.
Educational Values and Programs 100.

Suggested Elective:

Audio-visual Education 175.

The program below is designed so that its successful completion will lead to vocational certification and preparation to teach in all areas of homemaking in the high schools in Utah. Students should plan their program with a member of the Homemaking Education Department before registering.

Suggested Program For Majors In Homemaking Education

Freshman

Religion	6
English (Determined by placement test)	9
Physical Ed. and Health	4
Chemistry 2 and 3 (Inorganic and Organic)	9
Physics (Application to the home)	3
Psychology 11 (General)	5
Art 10 (Theory & Practice of Design)	2
Clothing and Textiles 10 (Selection and Care)	2
15 Dress Construction	3
Food and Nutrition 10 (Introductory Food and Nutrition)	4
Human Development & Family Relationships 80 (Family Health and Home) (Nursing)	2

Sophomore

Religion	6
Bacteriology 21 (General)	4
Zoology 48 (Elementary Human Physiology)	5
Economics 1 (Principles and Problems)	5
Clothing and Textiles 25 (Design and Construction)	3
Economics & Management of the Home 125 (Family Finance)	3
Food and Nutrition 105 (Fundamentals of Nutrition)	3
106 Fundamentals of Nutrition, Laboratory	1
120 Introduction to Experimental Cookery	4
Human Development and Family Relationships 40 (Child Development 1	3
41 Observation in the Human Development Laboratories	1
161 Family Relationships	3
Electives	

Junior

Religion	6
English (Literature)	3
Art	3-4
Educational Administration 170 (Health Education for Teachers)	3
Educational Research and Services 101 (Development & Learning)	6
Clothing and Textiles 60 (Textiles)	3
or 170 Textiles Economics	2
135 Family Clothing	3
Economics & Mgt. of the Home 130 (Home Management)	3
Food and Nutrition 140 (Meal Planning & Meal Service	4
Housing and Design 175 (Housing)	3
Human Development & Family Relationships (101 Experience with children)	3
Homemaking Education 120 (Basic Classroom Procedure in Secondary School Homemaking Instruction)	4
138 (Curriculum and participation in Secondary School Homemaking Instruction	3

Senior

Religion	6
English (Literature)	3
History 80 (The American Heritage)	5
Humanities & Aesthetics (Speech, Music, Philosophy)	4
Housing and Design 160 (Home Furnishings)	2

Courses that may be blocked.

Education Administration 100 (The School, the Teacher, the State)	3
Educational Instruction 185 (Principles of Teaching)	3
Education Values & Programs 100 (Educational Values)	3
Homemaking Education 139 (Student Teaching)	7
123 Demonstration Experiences (A.W.)	2
Clothing and Textiles 175 (Construction Techniques) (A.W.)	2
Economics & Management 170 (Homemaking Apartment)	4
Electives	

Suggested Student Teaching Blocks: (Others may be arranged)

Sixteen credit hours is the maximum students may elect for the quarter of student teaching.

5 Weeks	Cr. Hrs.	5 Weeks	Cr. Hrs.
Hmkg. Ed. 139	7	Hmkg. Ed. 123	2
		Ed. Ad. 100	3
Full day teaching		Ed. V. 100	3

OR

Hmkg. Ed. 123	2	Hmkg. Ed. 139	7
Cloth. & Tex. 175	2		
E.M.H. 170	4	Full day teaching	

OR

Ed. Ad. 100	3	Hmkg. Ed. 139	7
Ed. V. 100	3		
Ed. I. 185	3	Full day teaching	

120. Basic Classroom Procedures in Secondary School Homemaking Instruction. (4) A.W.S. Prerequisite: E.R.S. 101. Poulson, Staff
Lectures. demonstrations, observations.

An understanding of the role of the homemaking teacher in effective teaching. The use of materials, procedures and techniques that give learning experiences for the homemaking student in the secondary school.

121. Basic Classroom Procedures in Secondary School Homemaking Instruction-Laboratory. (1) A.S. Staff
A laboratory designed to accompany Homemaking Education 120.

123. Demonstration Experiences. (2) A.W. Prerequisite: Homemaking Education 138 or equivalent blocked with Student Teaching 139. Jacobs
Students plan and give demonstrations in the areas of food, clothing, equipment, housing and child care, with aspects of management considered in each area. Laboratory for demonstrations may be in Aurelia Spencer Rogers Hall, Homemaking Laboratory or BY High School laboratory. Methods of demonstration adapted to the teaching of homemaking in secondary schools are stressed.

138. Curriculum and Participation in Secondary School Homemaking Instruction. (4) A.W.S. Prerequisite: Homemaking 120. Poulson, Staff
Lectures, conferences, and participation at a high school laboratory.
Students learn to apply materials, procedures, and techniques to active classroom situations and to plan continuous well-organized learning experiences for homemaking students. Experience will be given in Adult Education. Fees: A special fee of $20.00 (pro-rated over the two quarters in which the student is registered for Homemaking Education 138 and 139 at $10.00 per quarter) is charged to equalize the cost of travel for student teachers regardless of the location of cooperating public schools.

139. Student Teaching. (7) A.W.S. Prerequisite: Homemaking Education 138 and the completion of two-thirds of the courses required from among subject matter departments within College of Family Living. Staff

Blocked with courses from among those listed as block courses.

Supervised teaching is carried on in an approved homemaking department of a public secondary school for half a quarter on a full day basis. The student teacher lives in the community in which she teaches. She bears her own expenses. Close contact is made with faculty, students and community. Participation on committees and in extra-curricular activities and responsible planning and teaching are expected.

Recommended Graduate Course

223. Teaching Home Economics in Secondary School. (3) S. Poulson

Opportunities for Informal Teaching Experience

Centers are available on campus where consultant instructors trained in all areas of homemaking help students with problems concerned with the mechanics and graciousness of living. The centers offer realistic laboratory situations for student teachers in Homemaking Education. Student teachers will become aware of the kinds of problems students have since help may be requested with such problems as grooming; etiquette; the care, selection, or construction of clothing; the daily tasks of management; the use of equipment; buying, meal planning, or meal preparation for themselves or for groups; and group entertaining. They will have a chance to observe the consultant instructors help men and women students, some with families, work out solutions to their problems. Opportunity to assist the consultant instructor will also be given.

The centers provide interested, eager audiences for demonstrations planned and carried out by students in Homemaking Education. These demonstrations will be given in many areas of homemaking, thus giving experience to student teachers and answering needs of the group.

Wymount Village, a group of twenty units which houses 200 students and their families, is a ready-made community for student teachers to learn to adapt teaching methods for adults. This experience will prepare them for adult education programs in the communities where they may teach.

Home Management

(See courses in Economcs and Management of the Home)

Horticulture and Horticultural Specialties

Professors: Harrison, Snell

Associate Professor: Ashton (Chairman, 331B)

Instructor: Reimschiissel

Students majoring in this department may emphasize either Pomology (fruit production), Ornamental Horticulture, Landscape Gardening, or Floriculture.

Students majoring in Pomology are required to complete Horticulture 1, 102, 103, 153, 155, 156, 170, 171, and at least 14 additional hours in Horticulture and Horticulture Specialties. Minimum requirement is 40 hours. Botany 1 and 140, and Chemistry 14 or courses equivalent to these are also required.

Students majoring in Ornamental Horticulture are required to take the following courses: Horticulture 3, 7, 102, 103, 115, 116, 117, 119, 124, 130, and 159; Botany 1, 3, 140, 170; Chemistry 14 or its equivalent; Industrial Arts, Elementary Drawing 43.

Students majoring in Landscape Gardening are required to take the following courses: Horticulture 3, 7, 102, 103, 115, 116, 117, 118, 119, 124, 130; Botany 1, 3, 140; Agronomy 151; Chemistry 14; Drawing 43 and Art 10.

Students majoring in Floriculture are required to take the following courses: Horticulture 3, 7, 102, 103, 115, 118, 159, and 170; Botany 1, 3, 140; Entomology 134.

In addition to the above requirements all students in this department are required to take the following: Agronomy 41 and 51; Agricultural Economics 23, 25, or 26, and 110; Animal Husbandry (two of the following): 1, 7, 21, or 90.

Lower Division Courses

1. Principles of Fruit Production. (3) A.W. Ashton
Principles underlying the profitable production of tree and small fruits. Varieties, soils, sites, fertilizers, culture, pest control, harvesting, storage, and propagation. Introduction to the field of pomology.

2. Vegetable Production. (3) S. Ashton
Principles and practice of profitable vegetable production.

3. Beautifying the Home Grounds. (3) A.W.S. Reimschiissel
A study of the principles of design and composition as applied to the home ground development and plant culture.

7. Floriculture. (3) A.S. Reimschiissel
Herbaceous plant culture in the greenhouse and out-of-doors is studied.

12. **Flower Arrangement.** (3) A.S. Reimschiissel
A study of the principles and methods of arranging flowers and other plant materials for decorative use in the home and for exhibition.

43. **Architectural Drawing.** Snell
(See Drawing 43.)

Upper Division Courses

102. **Plant Propagation.** (3) W. Ashton
Principles and practices of the propagation of horticultural plants.

103. **Plant Propagation Laboratory.** (2) W. Ashton

110. **Small Fruit Production.** (3) W. Ashton
Principles and practices of the successful and profitable production of small fruits for home and commercial plantings. Special emphasis on new varieties and disease and insect control.

112. **Practical Orchard Management.** (5) S. One lecture period and two four-hour laboratory periods per week. Ashton
Training, pruning, fertilizing, insect control, fruit thinning of orchard trees.

115. **Garden Flowers.** (3) (Taught only even-numbered years.) Prerequisites: Botany 1, 3. Reimschiissel
A study of the important ornamental herbaceous plants in Utah.

116. **Woody Plants.** (3) S. (Taught only odd-numbered years.) Reimschiissel
A study of the important ornamental woody plants in Utah.

117. **Nursery Practice.** (2) S. Staff

118. **Greenhouse Management.** (5) W. (Taught only in even-numbered years.) Staff

119. **Turf Management.** (3) A. Staff

124. **Landscape Design.** (3) W. (Taught only in even-numbered years.) Prerequisites: Horticulture 3 and Drawing 43. Reimschiissel
Designing private and public home grounds.

130. **Planting Design.** (3) W. Prerequisites: Horticulture 115, 116, and 124. Reimschiissel
Woody and herbaceous plant composition emphasized for private and public grounds.

152. **Systematic Pomology.** (2) A. (Taught only in odd-numbered years.) Ashton
Emphasis placed on the identification, description, and nomenclature of fruits and fruit trees.

153. Harvesting and Storage of Fruits. (2) A. (Taught only in even-numbered years.) Ashton
Problems related to harvesting and storage of fruits and vegetables.

155. Advanced Pomology. (5) A. (Taught only in odd-numbered years.) Prerequisites: Horticulture 1. Ashton
Principles and practices of establishing deciduous orchards.

156. Orchard Management. (3) W. Prerequisite: Horticulture 1. Ashton
Problems related to climate, soil, water, nutrition, varieties.

158. Weeds and Seed Analysis. (2) A. Reimschiissel
The important weeds occurring in Utah and their control. Seeds likely to occur in commercial seed. (See Agronomy 158.)

159. Plant Breeding. (3) W. Prerequisites: Botany 1 and Zoology 18 or 29. Ashton
Methods of hybridizing and selection in relation to plant improvements.

170. Plant Pathology. (5) A. Prerequisite: Botany 1; Botany 102 recommended. Harrison
A general survey of the occurrence, economic importance, symptoms, causes, and control of the more important diseases of cultivated crops. (See Botany 170.)

171. Diseases of Cultivated Fruits. (3) A. (Taught only in even-numbered years.) Ashton
Bacterial, fungus, virus, and nutritional diseases of horticultural plants.

191, 192, 193. Seminar. (1) A.W.S. Ashton
Current literature will be reviewed. For seniors and graduate students majoring in horticulture or plant pathology.

195, 196, 197. Special Problems in Horticulture. A.W.S. Staff
Credit and subject matter to be arranged.

Housing and Design

Professor: B. Hinman (chairman, SFC).

Instructors: Domgaard, E. L. Gardner, Hinman.

The Department of Housing and Design aims to help the student appreciate, understand, and plan for attractiveness and usefulness in home environment through study, observation, and creative experience. The primary goal is to increase ability to make the home and its surroundings worthy of their high purpose; to provide a place for the promotion of the spiritual, aesthetic, intellectual, and physical growth of the family, as well as to provide shelter. The principles of good design and the wisdom of planning within the budget are emphasized.

A minor, with selected courses from related departments, is offered. A major may be elected in conjunction with the department of Economics and Management of the Home. (See the program suggested under Economics and Management of the home.)

Courses in other departments that may be of interest to stustudents in Housing and Design are:

Art: 63, Crafts; 113, Home Planning; 114 to 117, Interior Design; 59, 159, 160, Ceramics.

Horticulture: 3, Beautifying the Home Grounds; 12, Flower Arrangement.

Industrial Arts: 27, 127, Wood and Metal Finishing; 28, 128, Upholstery; 60, Recreational Handicrafts.

The following courses are planned to be of value to both men and women.

Lower Division Courses

20. Weaving. (2) A.W.S. Two two-hour class periods; one hour lecture, three hours laboratory. Prerequisite: Art 10 or equivalent. Fee: $2.00. Domgaard, Gardner

Creative design as applied to woven fabrics; experience in weaving methods. A survey of hand-woven fabrics in world cultures.

45. Household Equipment. (3) A. Physics recommended. Hinman

Selection, placement, use, care, and repair of household equipment. Advantages of various types of equipment. Trips to retail stores and to homes to study arrangements.

Upper Division Courses

145. Household Equipment. (3) W. Prerequisite: Physics. Hinman

Selection, placement, use, care and repair of household equipment. Advantages of various types of equipment. Trips to retail stores and to homes to study arrangements. Consideration of installment buying.

160. Home Furnishings. (2) W.S. Prerequisite: Clothing and Textiles 15. Art 10, 114, and Clothing and Textiles 60 recommended. Gardner

Art related to the home through home furnishings; their care and construction; economics and art applied to their selection. Laboratory work includes the making of draperies, slip covers, lamp shades; quilting; and weaving.

175. Housing. (3) W.S. Housing and Design 160 recommended. Hinman

The housing requirements of families as influenced by their interests, activities, and socio-economic status. The planning of room arrangement and space. Field trip.

Human Development and Family Relationships

Professors: Porter (chairman, SFC), Allen, Ballif*, I. Barlow, Bradford, Holbrook, Symons.

Associate Professor: Jenny.

Assistant Professors: Canning, Dyer, Taylor.

Instructors: V. Anderson, F. Barlow, Empey, Harris, V. W. Larsen.

The department of Human Development and Family Relationships provides opportunities for increased understanding and appreciation of abundant and harmonious living within the family group and extends to the relation of the family with the community. The cultivation of insights and skills basic to effective human relationships, especially within the family, constitutes a major objective. Courses of study draw heavily upon the related areas of psychology, sociology, religion, recreation, and the humanities.

Through laboratories of the University and the facilities of the community, opportunities are provided for the study of human development and family relationships from infancy through old age. In the Human Development laboratory, parents are often in attendance. Some families cooperate by permitting students to visit in their homes. Experience is provided through contact with community centers and family-serving agencies.

Professional opportunities for majors in the department of Human Development and Family Relationships lie within the fields of: nursery school teaching and administration, leadership in recreational programs, positions with child and family welfare agencies, scouting and other youth-group leadership programs. A major in this department also provides basic preparation for graduate work leading to positions in college teaching in the areas of human development and family relationships, marriage annd family counseling, occupational and psycho-therapy, and leadership in child and family welfare agencies.

The College of Family Living carries an affiliation with the Merrill-Pamer School in Detroit. Students interested in various phases of child development; parent education; social service work; marriage counseling; or extension in human development and family relationships, may apply and be selected to study there during one term of the senior year or the last part of the junior year. Selection will be on the basis of scholarship, sincerity of interest, and readiness for intensive work. A limited number of graduate assistantships are available each year for work at Merrill-Palmer School. Students interested in these should consult the Merrill-Palmer catalog.

For minors in Human Development and Family Relationships, a total of 20 credit hours in the department is required. Suggested courses for minors are: HDFR 40, 41, 101, 102, 103, 104, 110, 160, 161, 162, 170.

For majors in Human Development and Family Relationships, a minimum of 36 credit hours in the department is required. For graduation from the College of Family Living these hours are to be combined with enough credits in the College to total 60 hours for women and 50 hours for men. Included shall be:

For Women:	
Clothing & Textiles	4
Economics & Management of the Home	3
Food & Nutrition	4
Housing & Design	3
For Men:	
Economics & Management of the Home	3-6
Food & Nutrition (5 or 10 and other if desired)	3-6
Housing & Design	3-6

The total for men shall include at least four courses in the three departments designated with a minimum of 3 credit hours in each department and a minimum total of 12 hours.

Suggested Program For Majors

Freshman Year

Religion	6
English (Determined by Placement Test)	9
Phys. Ed. & Health	4
Physical Science	9
Psychology 11 (General Psychology)	5
Art 10 (Theory and Practice of Design)	2
Cloth. & Text. 10 (women) (Dress Selection)	2
or 15 (women) (Dress Construction)	3
Foods & Nutrition 5 (men) (Essentials of Nutrition	3
10 (men or women) (Intro. Food & Nutrition)	3

Sophomore Year

Religion	6
Bact. 21 (General Bacteriology)	4
Zoology 48 (Elementary Human Physiology)	5
Economics 1 (Economics Principles & Problems)	5
Sociology 11 (Introductory Sociology)	5
History 70 (The American Heritage)	5
Humanities & Aesthetics (Art, Archaeology, History, Speech Music)	3-8
Cloth. & Text. 135 (women) (Family Clothing)	3
Housing & Design	3
Hum. Dev. & Fam. Rel. 40 (Child Development I)	3
41 Observ. in Hum. Dev. Lab.	1
Electives	10-15

Junior Year

Religion	6
English (Literature)	6
Psychology 122 (Psychology of Adolescence)	3

Econ. & Mgt. of Home 125 (Family Finance)	3
or 130 (Home Management)	3
Food & Nutr. 145 (women) (Nutrition of Mother and Child)	3
Hum. Dev. & Fam. Rel. 101 (Experience with Children)	3
102 Principles of Child Guidance	3
103 Observ. in the Hum. Dev. Lab.	1
160 Achieving Success in Marriage	3
161 Family Relationships	3
Electives (Education, Music, Philosophy, Psychology, Sociology, Speech)	10-15

Senior Year

Religion	6
Hum. Dev. & Fam. Rel. 110 (Child Development II)	5
162 Prof. Person and Families	3
170 Community Factors in the Dev. of Children and Families	3
192 Seminar	3
Electives (Education, Psychology, Sociology, HDFR, ect.)	20-25

Students interested in Child Development and/or Nursery Education should also take HDFR 100, 104, 111, 112, and 113.

Students interested in professional work with families, should also take HDFR 120, 160, 165, and 175.

Students interested in completing a major in Human Development and Family Relationships and also qualifying for an elementary teaching certificate, may do so.

Courses in other departments that may be of interest to students in Human Development and Family Relationships are: Educ. Instr. 110; Psychology 130 139, 140, 143, 145; Sociology 108, 114, 140, 146, 172; Speech 22, 24.

The following courses are planned to be of value to both men and women.

Lower Division Courses

15. The Latter-day Saint Family. (2) A.W.S. Staff

The significance of the family in the gospel plan of salvation and exaltation. L.D.S. scriptural ideals of marriage and parenthood. Spiritually healthy family living as the key to abundant joy.

40. Child Development I. (3) A.W.S. (†GER-SS—GER-R) Prerequisite: Psychology 11; Sociology 11 recommended. Staff

Consideration of the biological and psychological growth and development of the child and of his relationship with his family, peers, and teachers; his readiness and capacity to learn; and his understanding of himself. Study begins with infancy and continues through adolescence. (To be accompanied by HDFR 41.)

41. Observation in the Human Development Laboratories. (1) A.W.S. Two hours of observation per week. TBA F. Barlow

Designed to accompany Human Development and Family Relationships 40. Reports required.

80. **Family Health and Home Nursing.** (2) A.W.S. Jenny, Richards, Wilson
Knowledge and attitudes about healthful family living. Skills in giving simple home nursing care to the sick or injured. Essentials of maternal health and child care. (See Nursing 7.)

85. **Foundations for Marriage.** (2) A.W.S. Porter, Staff
Understanding oneself in relation to the desire for a marriage partner and a family. Consideration of the functions of dating, courtship and engagement. Religious, social, and economic considerations preparatory to the establishment of a family. Early marital adjustments. (See Sociology 13.)

Upper Division Courses

100. **History and Philosophy of Nursery School Education.** (3) S. Staff
History of the Child Development Movement and philosophy of present-day agencies and programs operating to further the welfare of children.

101. **Experience with Children.** (3) A.W.S. Prerequisites: HDFR 40 or its equivalent. Two lectures and one three-hour laboratory period or two two-hour periods. F. Barlow
An opportunity to more fully understand children as well as oneself while working with children in the Human Development Laboratory.

102. **Principles of Child Guidance.** (3) W.S. (†GER-SS—GER-R) Prerequisite: HDFR 40. (Must be accompanied by HDFR 103.) Staff
An attempt to apply the knowledge and understanding of child behavior and the psychodynamics of family interaction of the guidance of children. The child's behavior is considered as the language whereby he tells his adults about his needs. Behavior and guidance principles are studied directly in the Human Development Laboratories. Helpful to parents and prospective parents.

103. **Observation in the Human Development Laboratories.** (1) W.S. Two hours of observation per week TBA. Staff
Designed to accompany HDFR 102. Analytical reports of observations required.

104. **Creative Play in Childhood.** (3) S. Staff
The use of creative play materials in enriching a child's life. The meaning of play and its value in meeting the needs of the growing child.

110. **Child Development II.** (5) S. Prerequisite: HDFR 40 or Psychology 122; Psychology 123, and Sociology 11. Staff
An intensive study of the application of principles of child development and behavior as they relate to home situations, nursery schools, daycare centers, and other children's programs. Observation and actual experiences with children from infancy through adolescence are provided.

111. Nursery School Methods. (3) S. Prerequisite: HDFR 101. Staff
Curriculum planning for the nursery school, including home-school relations. Observation of teaching in the Nursery School.

112. Supervised Teaching in the Nursery School. (5) A.W.S. Prerequisite: HDFR 101, 111 and consent of Instructor. Staff
Experience in teaching and supervising a group of nursery school children three hours a day for a period of six weeks.

113. Nursery School Planning. (3) S. Prerequisite: HDFR 111. Staff
Essential procedures in nursery school organization and administration including housing, equipment, food service, health protection and supervision; analysis of responsibilities of a head teacher. Field trips to selected children's centers.

120. Development and Adjustments During the Middle and Later Years. (3) A.S. (†GER-SS—GER-R) C. Taylor
Adjustments in the middle and later years revolving around physical, emotional, and social changes. Emphasis is placed upon needs that arise from changes in family relationships, living arrangements, and employment. Discussions of public and private provisions designed to meet the needs of older people. (See Psychology 126)

160. Achieving Success in Marriage. (3) A.W.S. (†GER-SS—GER-R) Prerequisite: Pyschology 11. Porter
Consideration of factors that contribute to successful marriage. Maturity, compatibility and cooperation as basic concepts in marital adjustment. Maximization of family development through healthy parent-child relationships and the effective management of family resources. Unique tasks faced by the family in maintaining stability in a dynamic twentieth century world. (See Sociology 170.)

161. Family Relationships. (3) A.W.S. (†GER-SS—GER-R) Prerequisite: Psychology 11. Sociology 11 recommended.
I. Barlow, Porter
The family in action in the American culture of today. Inter-personal relationships in the family; their significance in developing values, goals, attitudes and patterns of behavior through the various stages of the family life cycle.

162. The Professional Person and Families. (3) W. Prerequisites: HDFR 161. Porter
A study of the ways in which families are important to the professional person who works either directly or indirectly with families; methods of obtaining information about families; kinds of information most valuable to the professional person; and effective ways of using information about families.

165. Introduction to Parent Education. (3) W. Prerequisite: Concent of Instructor. Porter
Training for parent education. Basic principles in the organization of parent study programs. Formulation and presentation of programs for parents.

170. Community Factors in the Development of Children and Families. (3) A. Prerequisite: HDFR 40, 161, and Sociology 11. Porter

A study of community factors in the development of children and families. An acquaintance with the resources of the community as they relate to the welfare of the child and his family. Field trips to acquaint students with community agencies.

171. Planning for Family and Neighborhood Recreation. (2) A.W.S. Holbrook

Principles and techniques in arranging for and conducting recreational activities for a family group as well as for families in neighborhood groups.

175. Introduction to Marriage and Family Counseling. (3) W. Porter

Theories and techniques used in marriage and family counseling. Consideration of individual and group counseling as it pertains to the family.

190. Readings in Human Development and Family Relationships. (1-3) W. TBA Staff

Discussions and reports of current readings in this field. Open to students who have completed 15 hours of Human Development and Family Relationships.

192. Seminar. (3) S. Prerequisite: Human Delevopment and Family Relationships 190 or its equivalent. Porter

Analysis and evaluation of selected research reports in human development and family relationships. Special emphasis upon problems involved in designing and executing research.

195. Special Problems in Human Development and Family Relationships. (1-3) A.W.S. TBA Porter, Staff

Individual study for qualified students majoring in Human Development and Family Relationships upon consultation with the instructor and the chairman of the department.

GRADUATE COURSES

For registration governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

210. Advanced Child Development. (3) W. Prerequisite: HDFR 110 Staff

214. Nursery School Planning. (3) S. Prerequisite: HDFR 113. Staff

260. Dynamics of Family Interaction. (3) W. Prerequisites: HDFR 160 & 161. Porter

263. Critical Problems in Family Life. (3) W. Prerequisite: HDFR 161. Staff

265. Parent Education. (3) A. Prerequisite: HDFR 165. Staff

275. Marriage and Family Counseling. (3) S. Prerequisite: HDFR 175. Staff

292. Seminar. (3) S. Staff

295. Special Problems in Human Development and Family Relationships. (1-3) A.W.S. Staff

296. Research Problems and Methods in Human Development and Family Relationships. (3) A. Porter

299. Independent Research. (1-3) A.W.S. Staff

300. Thesis for Master's Degree. A.W.S. Staff

Industrial Arts and Drawing

Professor: Snell.
Assistant Professor: Gamett (chairman, I.A.)
Instructor: Pierce.

Majors are offered in industrial arts, teacher education and vocational industrial arts. Minors are offered in industrial arts, drawing, and farm mechanics. A farm mechanics minor cannot be used with an Industrial Arts major.

Credit in shop courses and drawing is given on the basis of three hours for nine hours application each week during the quarter.

For a major, a sequence of courses must be followed as outlined by the department.

Teacher-Education Curriculum

The department offers the student a program which will meet the state requirements for a certificate for teaching industrial arts. Practice and theory are combined and the student not only learns how to teach the industrial arts, but also masters the skills and techniques of basic operations.

Industrial Arts Teaching Major: 45 hours (Equivalents for these courses must be approved by the Industrial Arts Department.)

Areas	Required Hrs.	Suggested Courses
Drawing	4 hours	Drawing 4. 44
Woodwork	12 hours	Ind. Arts 30, 31, 123 or 125, 127
Metalwork	12 hours	Ind. Arts 10, 11, 12, 19
Craftwork	6 hours	Ind. Arts 60, 100, 64 or 164
Electricity	4 hours	Ind. Arts 145
Shop Organization and Management	3 hours	Ind. Arts 160
Electives	4 hours	

Secondary Education requirements for teaching Industrial Arts:

Ed. Inst. 170 (0)	Ed. R&S 103 (1)	Ed. R&S 100 (2)
Ed. Inst. 120 (3)	Ed. Inst. 138 (4)	Ed. Inst. 139 (5)
Ed. Adm. 100 (6)	Ed. Val. 100 (6)	Ed. Inst. 185 (6)
Ind. Arts 161 (Jr. Yr.)	Ind. Arts 162 (3)	Ed. R&S 145 (0)

Note: Numbers in parenthesis following the above courses indicate the sequence in which courses should be taken. (0) may be taken at any time.

Vocational Industrial Arts

Vocational Major:

Option I Major 59 hours

Areas	Required Hrs.	Suggested Courses
Drawing	12 hours	Drawing 4, 44, 45, 140, 180
Electricity	2 hours	Ind. Arts 146
Metalwork	9 hours	Ind. Arts 11, 12, 19
Woodwork	24 hours	Ind. Arts 30, 31, 116, 117 123, 124, 125, 126
Related Ind. Arts	12 hours	Ind. Arts 28, 119, 122, 170, 171
Minor: Related Field	20 hours	

Option II Major 58 hours

Areas	Required Hrs.	Suggested Courses
Metalwork	20 hours	Ind. Arts 10, 11, 12, 16 19, 110, 112
Electricity	2 hours	Ind. Arts 145, 146
Woodwork	26 hours	Ind. Arts 21, 30, 31, 32, 116, 117, 123, 124, 125, 126
Related Ind. Arts	10 hours	Ind. Arts 28, 119, 122, 128, 170, 171
Minor: Drawing	20 hours	

Minors

Teaching Minors: (Must have approval of the Industrial Arts department.) Minors may be selected from any of the subjects taught in the secondary school, preferably a subject related to Industrial Arts such as drawing, art, mathematics, physics, or chemistry.

Suggested Minors that may be elected with a major other than Industrial Arts:
Industrial Arts Teaching Minor 24 hours

Areas	Required Hrs.	Suggested Courses
Drawing	4 hours	Drawing 4, 44
Industrial Arts	20 hours	Ind. Arts 19, 30, 31, 60, 127, 145, 160

Industrial Arts Minor 20 hours

Areas	Suggested Hrs.	Suggested Courses
Drawing	4 hours	Drawing 4, 44
Industrial Arts	16 hours	Ind. Arts 11, 12, 19, 30, 31, 127, 145, 146

Industrial Arts Minor
Farm Mechanics 20 hours

Area	Suggested Courses
Industrial Arts	Ind. Arts 11, 12, 16, 17, 18, 30, 116, 119, 122, 146 Drawing 4

INDUSTRIAL ARTS

Lower Division Courses

10. Machine Practice. (3) A.W.S. Three two-hour periods per week. Gamett

The use of hand tools in bench work, with engine lathe, drill press, and grinding operations.

11. Acetylene Welding. (3) A.W.S. Three two-hour periods a week. Pierce

Fusion welding of mild steel and brazing.

12. Electric Welding. (3) A W.S. Three two-hour periods per week. Pierce

Fusion welding of mild steel and oxy-acetylene cutting.

16. Forge Practice. (3) W. Three two-hour periods per week. Staff

Fundamental forge operations including bending, shaping, welding, and tempering.

17. Farm Machinery. (2) S. Staff

Care and maintenance of general farm equipment.

18. Gas and Diesel Engines. (3-5) W. Staff

A course designed for agricultural students. Care and maintenance of gas and diesel engines.

19. Sheet Metal and Ornamental Iron. (3) W. Three two-hour periods per week. Staff

Projects in sheet metal, ornamental iron work, and pattern layout involving fundamental machine and hand tool operations.

21. Wood Turning. (3) A.W.S. Pierce

Exercises and projects in spindle and face plate turning.

27, or 127. Wood and Metal Finishing. (3) A.S. Three two-hour periods per week. Gamett

Preparation of surfaces for the application of finishes. Staining, painting, varnishing, lacquering, polishing, etc. Use of brush and air gun.

28. Upholstery. (2) A.W. Two two-hour periods per week. Gamett

Typical forms of upholstery, including foundations with and without springs.

30. Tool Technique. (3) A.W.S. Staff

Care and use of woodworking, hand and machine tools applied in fundamental principles of sawing, joining, fitting, and fastening. Required of all majors and minors in Industrial Arts.

31, 32. Cabinet Construction. (3-3) W.S. Three two-hour periods per week. Prerequisite: Industrial Arts 30. Gamett

Use of hand and machine tools in the construction of fine furniture. Drawings, specifications, and cost estimates of all projects must be submitted.

60. Recreational Handicrafts. (1-3) A.W.S. Pierce
Students may work in a selected area according to their interests such as woodwork, metalwork, plastics, lapidary work, etc. Course is open to all students interested in leisure time activities.

63. Crafts. (2) A.W.S. Leathercrafts. (See Art 63.)

64. or 164. Plastics. (2) W.S. Two two-hour periods per week. Staff
Fundamental hand and machine operations used in working plastics.

Upper Division Courses

100. Art Metal Crafts. (2) W. Two two-hour periods per week. Gamett
Projects in metal. Hand tooling in brass, copper, and aluminum; soldering and spinning.

110. Machine Practice. (3) A.W.S. Prerequisite: Industrial Arts 10. Gamett
Operations in the use of the lathe, shaper, and milling machines.

112. Welding. (3) A.W.S. Prerequisites: Industrial Arts 11 and 12. Pierce
Advanced work in acetylene and electric welding.

116. Carpentry. (3) W. Three two-hour periods each week. Prerequisites: Drawing 4 or 43. Pierce
Practical problems in forming framing, sheathing, and insulation.

117. Carpentry. (3) S. Three two-hour periods each week. Pierce
Practical problems in interior and exterior trim.

119. Plumbing. (2) W. Two two-hour periods per week. Pierce
Plumbing and plumbing layout.

122. Masonry. (2) A.S. Pierce
Practice in laying up cinder or concrete blocks into simple wells as needed for farm structures.

123. Machine and Tool Maintenance. (3) W. Three two-hour periods per week. Staff
Care, sharpening, and maintenance of woodworking tools, machines, and supplementary equipment.

124. Mill Work. (3) A. Three two-hour periods per week. Prerequisites: Industrial Arts 30 and Drawing 44. Gamett
Work will be handled as nearly as possible as in actual mill practice. Estimates and working drawings will be made and a careful check of material and labor kept and computed for each job.

125, 126. Shop Work. (3-3) W.S. Three two-hour periods per week. Prerequisite: Industrial Arts 30. Gamett
Advanced work in cabinet work, upholstery, pattern work, or novelty work.

128. Upholstery. (2) A.W. Prerequisite: Industrial Arts 28. Gamett

Advanced work in upholstery.

130. Pattern Making and Foundry Practice. (2) W. Two two-hour periods per week. Prerequisite: Industrial Arts 30. Staff

Principles of pattern making taught through wood patterns and sand castings of machine parts.

145. Electricity. (4) A.W. Four two-hour periods per week. Staff

Fundamentals of electricity, including DC and AC motors and generators.

146. Electricity. (2) W. Two two-hour periods per week. Gamett

Simple electrical circuits in homes and farm buildings.

160. Shop Planning and Organization. (3) S. Gamett

Planning and organizing the physical plant for different types of school shops.

161. Principles and Objectives of Industrial Arts Education. (3) S. Gamett

General philosophy and purposes of industrial education; its principles and objectives.

162. Methods of Teaching Industrial Arts. (3) A. Gamett

Techniques and methods applied to individual and group instruction.

170. Standard Construction Methods. (3) A. (Taught alternate years.) Staff

This course deals with the theoretical aspects of building, location, soil conditions, footings, material, and equipment.

171. Estimating. (3) W. (Taught alternate years.) Prerequisite: Drawing 44. Snell

Interpreting plans and specifications. Methods of estimating and figuring costs of materials and labor.

180. Special Problems in Industrial Arts. A.W.S. Staff

Credit and subject matter to be arranged.

Drawing

Lower Division Courses

4. Blue Print Reading. (2) A.W.S. Snell

A fundamental course in blue print reading. This course covers the instruction necessary to understand the purposes of, and the relation between, specifications and drawings as used in industry.

9. Elementary Machine Design. (2) A.W.S. Two two-hour drawing periods per week. Prerequisite: Drawing 4. Snell

Machine fastenings, technical sketching, working drawings, detailings, jigs, and fixtures.

40. Theory and Practice of Design. (2) A.W.S. (See Art 10.) Staff

42. **Free-hand Lettering.** (2) A.W.S. Two two-hour periods per week. Snell

Practice in lettering as applied in engineering and architectural drawing.

43. **Elementary Drawing.** (3) A.W.S. Three two-hour drawing periods per week. Staff

The care and use of instruments, lettering, applied geometry, and orthographic projection. A beginning course for students interested in drawing.

44. **Architectural Drawing.** (3) A.W.S. Three two-hour drawing periods per week. Prerequisite: Drawing 4 or equivalent. Snell

Drawing of architectural details of footings, walls, doors, windows, cornices, etc.

45. **Architectural Drawing.** (3) A.W.S. Three two-hour drawing periods per week. Prerequisite: Drawing 44 or equivalent. Snell

Small house plans, elevations, sections, and details.

46. **Descriptive Geometry.** (3) S. Three two-hour drawing periods per week. Prerequisite: Drawing 43 or equivalent. Snell

Principles relating to point, line, plane, cylinder, cone, and double curved surfaces, etc., with application to practical problems. Required of architectural students and vocational industrial arts majors and minors in drawing.

47. **Instrumental Perspective.** (2) A.W.S. Two two-hour drawing periods per week. Prerequisites: Drawing 4 or 43. Snell

The theory and application of methods of drawing architectural perspectives.

48. **Shades and Shadows.** (2) A.W.S. Two two-hour drawing periods per week. Prerequisite: Drawing 47. Snell

49. **Rendering.** (2) A.W.S. Two two-hour drawing periods per week. Prerequisite: Drawing 48. Snell

Wash rendering practice plates and rendering of architectural elements.

Upper Division Coursese

140, 141, 142. **Architectural Design.** (3-3-3) A.W.S. Three two-hour drawing periods per week. Prerequisites: Drawing 44, 45, or equivalent. Snell

Original design by the student. Problem to be passed upon by instructor. Complete set of plans with one display of problem chosen.

150. **Topographical Drawing.** (3) A.W.S. Three two-hour drawing periods per week. Prerequisites: Drawing 43 or equivalent. Snell

Topographical symbols, mapping, and plotting.

180. **Special Problems in Drawing.** (1-3) A.W.S, Staff

Credit and subject matter to be arranged.

Industrial Management

Professors: R. L. Smith (Chairman, 133N), E. Miller.

Instructors: Davies, Hardy, Larsen.

The program in Industrial Management provides training and experience for effective management of an industrial organization. A student must choose in his senior year either a production emphasis or an industrial relations emphasis as a supplement to the basic program in Industrial Management. All aspects of the program are focused on the individual business entity. Consideration is given to the tools and techniques used, and the functions, activities and problems encountered at the operating, policy making, and research levels of industrial operations.

It is recognized that effective business managers must have skill in defining and analyzing the problems of business and the ability to reach reasoned decisions, communicate those decisions effectively, and secure proper implementation of those decisions within the framework of the business organization. For this reason the major emphasis in the conduct of the program is to provide the student with a desirable technical background in business, plus a comprehensive experience in the solving of business problems, conducting research, and communicating both orally and in written reports.

Industrial Management Course Requirements and Suggested Sequence

(Note: All listed courses are required for graduation.)

I. Freshman and Sophomore Years (Pre-Business)

A. General Education

1. Religion	12 hours
2. Physical Science	5 hours
3. Biological Science	8 hours
4. English	9 hours
5. Social Science (Incl. History 70 or equivalent)	10 hours
6. Physical Education and Health	4 hours
7. Humanities	15 hours
Total	63 hours

B. Pre-Business Tool Courses

1. Accounting 1 and 2	10 hours
2. Economics 1	5 hours
3. Accounting 35	5 hours
4. Economics 75	5 hours
Total	25 hours

C. Electives (Maximum)		20 hours
Grand Total		108 hours
II. Junior Year (Departmental Major)		
A. General Education		
1. Physical Science		4 hours
2. Religion		6 hours
Total		10 hours
B. General Business		
1. Marketing 107 - Principles of Marketing		5 hours
2. Finance & Banking 151 - Business Finance		5 hours
3. Industrial Management 120 - Managerial Control		5 hours
4. Economics 145 - Intermediate Economic Theory		5 hours
5. Finance & Banking 154 - Introduction to Commercial Law		5 hours
Total		25 hours
C General Production		
1. Industrial Management 130 - Industrial Organization and Management		5 hours
2. Drawing 4 - Blue Print Reading		2 hours
Total		7 hours
D. Electives (Maximum)		12 hours
Grand total		54 hours
III. Senior Year		
A. General Education		
1. Religion		6 hours
B. General Business		
1. Industrial Management 190, 1, 2 - Problems in Business Management		9 hours
C. General Production		
1. Industrial Management 150, 1, 2 - Problems in Production		15 hours
D. Production Emphasis		
1. Industrial Management 180 - Production Policy	5 hours	
2. Industrial Management 185 - Industry Analysis	5 hours	
Total	10 hours	

OR

E. Industrial Relations Emphasis		
1. Industrial Management 160 - Personnel Management	5 hours	
2. Industrial Management 169 - Problems in Industrial Relations	5 hours	
Total	10 hours	10 hours
F. Electives (Maximum)		14 hours
Grand total		54 hours

In addition to the above required courses, the following are highly recommended: For all Industrial Management majors—Accounting 188; Business Management 169, 180; Economics 176; Finance and Banking 268; Marketing 170 or 171; and Mathematics 1 or 11. For students emphasizing Production—Industrial Management 171, 175, and 178. For students emphasizing Industrial Relations—Industrial Management 161, 162, 164, 167, and 168.

Lower Division Courses

4. Blue Print Reading. (2) (See Drawing 4.)

Upper Division Courses

120. Managerial Control. (5) A.W.S. Prerequisites: Accounting 1, 2, 35; Economics 75. R. L. Smith

For non-accounting majors who must use and understand accounting data as a basis for action. Point of view is that of management. The course deals with the product of the accountant rather than the process of accounting.

130. Industrial Organization and Management. (5) A.W.S. R. L. Smith, Staff

An introductory course to the production function of business. Deals with problems and techniques in the areas of plant location and layout, machinery and equipment utilization, employee-employer relations, and industrial control.

150, 151, 152. Problems in Production. (5-5-5) A.W.S. Prerequisites: Accounting 1, 2, 35; Industrial Management 4, 120, 130; Economics 1, 75, and 145; Finance and Banking 151; and Marketing 107. R. L. Smith

A one-year course dealing chiefly with problems requiring analysis, decision, and action on the part of business executives. To provide practical, realistic training in representative types of problems encountered by production executives at the level of a factory manager. The problems deal with product development and analysis, process analysis and control, and labor relations and administration. Extensive case analysis and report writing are supplemented with reading in collateral material and laboratory-type work projects. Meets for two consecutive hours three days per week.

160. Personnel Management. (5) A. Prerequisite: Industrial Management 130. Staff

Principles and techniques involved in developing a modern personnel organization for protecting the welfare of employees and promoting effective labor management. Employee selection, training, promotion, and incentives are stressed.

161. Labor Problems. (3) A. Miller

(See Economics 161.)

164. Industrial Psychology. (3) A.W. Prerequisite: Psychology 11. Hardy, Moffitt

(See Psychology 164.)

167. Personnel Psychology. (3) S. Prerequisite: Psychology 11. Peterson

(See Psychology 167.)

168. Human Relations in Industry. (3) A. Larsen

(See Sociology 141.)

169. Problems in Industrial Relations. (5) S. To be taken concurrently with Industrial Management 152. Staff

Deals with problems requiring analysis, decision, and action on the part of line supervisors, personnel representatives, staff officers and top management in the areas of personnel management, administrative practices, and collective bargaining. Meets for two consecutive hours for three days per week.

171. Production Planning and Control. (3) For seniors only with departmental approval. Staff

Deals with the problems, concepts, principles and techniques of quantitative and qualitiative control of materials and manufacturing processes. Includes the procurement, handling, internal transportation and control of materials as well as process planning, routing and scheduling.

175. Techniques in Production Analysis. (3) For seniors only with departmental approval. Staff

Deals with methods of analyzing manufacturing operations for most effective utilization of materials, machines and manpower. Includes time and motion studies, methods analysis, cost analysis, capital budgeting, job evaluation, merit rating and setting of standards.

178. Organization Planning. (3) For seniors only with departmental approval. Staff

Deals with principles, concepts and methods of developing an organizational structure, inaugurating organizational practices and establishing organizational controls for the accomplishment of organizational objectives. Includes consideration of line, staff, and committee type of organizations at several different levels in the enterprise.

180. Production Policy. (5) W. Prerequisite: Industrial Management 150. R. L. Smith

For students desiring production emphasis. Deals with top management policy determination, especially as it is affected by production considerations. Treats such issues as economic aspects of production planning (specialization, simplification, integration, etc.), planning the physical facilities (plant location, balancing of production, capital budgeting, etc.), organization planning, and adaptation to change. Meets for two consecutive hours for three days per week.

185. Industry Analysis. (5) S. Prerequisite: Industrial Management 151. R. L. Smith

Intensive analysis of the principal production characteristics of important American and local industries. Studies are made of selected large business units in terms of sources of raw materials, production techniques, financial structure, degree of integration, stage of maturity, character of mechanization, government regulation, and possible future developments. Meets for two consecutive hours for three days per week.

190, 191, 192. Problems in Business Management. (3-3-3) A.W.S. Staff

A one-year inter-departmental course limited to seniors in the College of Commerce. Deals with problems requiring analysis, decision, and action on the part of business executives at the operating level in management. The problems cut across subject matter lines and involve marketing, financial, production, personnel, control and other issues all simultaneously pertinent to the development of realistic recommendations. Extensive use of business cases requiring student analysis ,group discussions, and written reports will form the principal basis for the conduct of the course.

Italian

(See courses in Modern and Classical Languages.)

Japanese

(See courses in Modern and Classical Languages.)

Journalism

Associate Professors: O. R. Smith (Chairman, 160 SSC), W. J. Taylor.

Assistant Professors: Butterworth, Tyndall.

Instructors: Boel, Haymore, Rich.

A student who elects to major in Journalism will pursue one of the specialization sequences listed below.

I. Editorial Journalism: minimum of 40 credit hours in Journalism including courses 61, 62, 105, 106, 107, 161, 162, 171, 172, 179, 185. Recommended electives are courses 1, 26, 121 130, 175.

Typical Schedule of Journalism Courses

1st Year	2nd Year	3rd Year	4th Year
1 (3)	61 (3)	105 (5)	106 (5)
	62 (3)	107 (3)	171, 172 (4)
26 (4)		161, 162 (4)	179 (2-4)
		185 (5)	

II. Radio-Television Journalism: minimum of 40 credit hours in Journalism, including courses 41, 61, 106 and 107, and 14 hours selected from the following: courses 127, 141, 146, 147, 148, 149, 150, 192. Students who wish to specialize in news should elect course 62; students who specialize in advertising should elect course 139. Recommended electives for either specialization are courses 1 and 105.

Related courses in other departments recommended for radio-television majors are Physics 2; Speech 51, 52, 154, 159.

Typical Schedule of Journalism Courses

1st Year	2nd Year	3rd Year	4th Year
1 (3)	41 (3)	107 (3)	149 (5)
	61 (3)	141 (3)	150 (5)
		146, 147 (4)	106 (5)

III. Public Relations and Industrial Journalism: minimum of 40 credit hours in Journalism including courses 1, 61, 106, 118, 135, 139, 175, 180, 193. Recommended electives are courses 62, 105, 179.

The student should select a composite minor of 30 or more hours from at least three of the following course groups: Accounting 35, Industrial Management 120, 163; Economics 1, 75, 161, 176; Psychology 11, 145, 164, 165, 167; Sociology 11, 114, 141, 142.

Typical Schedule of Journalism Courses

1st Year	2nd Year	3rd Year	4th Year
1 (3)	61 (3)	175 (2)	139 (5)
	62 (3)	118 (3)	106 (5)
		135 (3)	193 (2)
		180 (3)	

IV. Teaching Major. Students who plan to teach journalism in secondary schools should take the following courses in Journalism: 61, 62, 105, 106, 161, 162, 171, 172, 185, and seven or more hours selected from coursese 1, 26, 121, 179. Journalism is one of the subjects comprising the composite major in Language Arts designed for prospective teachers. Appropriate teacher education courses are prescribed by the College of Education.

The above sequences may be altered to allow for previous experience or individual needs upon permission of the head of the department. For highly qualified students special programs of study may be outlined in advertising, photo journalism, or community journalism.

Other Requirements. It is recommended that students who major in Journalism complete the American History and Government requirement of the university by taking Political Science 10 and either History 21 or History 74. History 70 or 80 should not be taken.

Journalism majors are also advised to obtain as broad a background as possible in the social sciences, and at least 9 hours in English in addition to freshman English. Two years in foreign language are recommended.

Majors must have ability to operate a typewriter.

The following are suggested as minors for students who major in Journalism: Industrial Management, Economics, English, History, Marketing, Political Science, Psychology, Sociology, and Speech.

Lower Division Courses

1. Introduction to Mass Communication. (3) A.S. Butterworth

An introduction to the social, cultural, and practical aspects of journalism. Emphasis is given to the viewpoint of the layman as a "consumer" of journalism. The course surveys the history, reading values, origins, meanings, and processing of news.

26. Photography. (4) A.S. W. Hales

A study of the camera and its accessories, lenses and image formation, photographic laboratory arts and techniques. Three lectures and one laboratory period per week. (See Physics 26.)

41. Introduction to Radio and Television Broadcasting. (3) A.W.S. Rich

Scope, influence, current practice, problems and social implications of the American system of radio and television broadcasting; microphone practice and experience. Two-hour laboratory. (See Speech 41).

61. News Writing. (3) A.W.S. Prerequisite: English 3 or 13. Staff

Newspaper style and the elements of news; practice in gathering and writing news stories. (Use of typewriter is required.)

62. **Reporting.** (3) W.S. Prerequisite: Journalism 61. Staff
Study of reporting and news gathering techniques; practice in handling special reporting assignments such as sports, society, politics, conventions, and police news.

Upper Division Courses

105. **History of Mass Communications.** (5) S. Smith
Development of American journalism from its colonial beginnings to the present, portraying the press in relation to the political, social, and economic history of the times. Special attention will be given to the establishment and growth of newspapers in the West. Emergence of the newer media of radio and television.

106. **Practices and Problems in Mass Communications.** (5) W. Smith, Staff
The role of mass communication in American life. Problems of the newspaper, magazine, radio and television in their information, opinion and entertainment functions in the community. (Required of all majors in senior year.)

107. **Law of Mass Communications.** (3) W. Staff
Study of legal limits and privileges of the press and radio; libel, contempt, privileged documents and sources, copyright, right of privacy. Problems in avoiding criminal and civil liabilities.

111. **Magazine Article Writing.** (3) W. Butterworth
Study of non-fiction articles for general magazines, specialized publications, and newspaper sections; assignments in planning and writing articles. Criticism, analysis of manuscript markets, and help in selling articles written in the course.

118. **Public Opinion Polls and Surveys.** (3) A. Smith
A study of survey methods in opinion and attitude research: construction of questionnaires; large-scale sampling; procedures in telephone, mail, and personal interview surveys; evaluation of survey data. The development of opinion polls in the United States. Application of survey techniques in a field project.

121. **Press Photography.** (4) W. Two lectures and two three-hour laboratory periods per week. Prerequisite: Journalism 26. Boel
Lectures on the principles of photography for newspapers and periodicals, and laboratory exercises in the use of photographic equipment for the taking and developing of news pictures.

122, **123, 124. Press Photography Workshop.** (1-1-1) A.W.S. Prerequisites: Journalism 61, 121, and permission of instructor. Boel
Individual projects requiring the completion of photographic assignments for campus and commercial publications; weekly conferences with instructor on special problems in press photography.

127. **Motion Picture Photography.** (3) A.S. Prerequisite: one of the following courses or equivalent—Journalism 26, Education 175. Tyndall

Principles of motion picture photography in educational, recreational, and professional applications; practice in use of the motion picture camera for indoor and outdoor subjects; script preparation, film editing, titling, sound recording and special effects. (See Education Instruction 177.)

130. **Newspaper Advertising.** (2) A. Staff

Organization and operation of the advertising department of the newspaper. Rates, procedures, and promotion for display and classified advertising.

131, 132, 133. **Advertising Sales and Promotion.** (2-2-2) A.W.S. Staff

Preparation of copy and layouts, and sale of local advertising in the campus newspaper. Conferences with the instructor on advertising sales promotion and practical field work in serving local advertising accounts.

135. **Public Relations.** (3) S. Staff

The philosophy and practice of public relations as related to industrial, business, educational, governmental, and other institutions. Study of various publics and communication media, and selection and use of effective tools in public relations programs.

139. **Advertising.** (5) W. Taylor, Staff

The subject of advertising is dealt with in a comprehensive manner. Specifically, the course directs study to the different levels of selling and considers the respective advertising problems. The fundamentals of good copy, visualization, layout, technical problems of production, and the planning and execution of the complete campaign, including advertising research and testing ,are given analytical emphasis. (See Marketing 159.) Staff

141. **Radio News Writing.** (3) A. Prerequisite: Journalism 61. Staff

Radio news style, types, and sources; practice in writing and editing news copy for broadcast purposes. (See also Speech 141.)

146, 147, 148. **Radio-TV News Workshop.** (2-2-2) A.W.S. Prerequisite: Journalism 141 and permission of instructor. Staff

Practical experience in gathering and writing local news and rewriting wire news for radio broadcast. For qualified students, practice in filming events for TV newscasts. Conferences on news problems.

149. **Radio and Television Advertising.** (5) W. Staff

Business and advertising principles of radio and television. Survey of the entire commercial background of broadcasting.

150. Commercial and Continuity Writing for Radio and Television. (5) S. Staff

A study of all forms of commercial radio and television writing, including spot announcements, participating announcements, program commercial copy, program tie-ins, musical program continuity, and talks program continuity.

161, 162. Reporting Workshop. (2-2) A.W.S. Prerequisite: Journalism 62. Staff

Supervised work in regular staff positions on the campus newspaper, involving the writing of news and feature copy. Conferences with the instructor on problems of news-gathering and news-writing.

171, 172. Advanced Reporting and Editing Workshop. (2-2) A.W.S. Prerequisites: Journalism 162 and 185. Staff

Practical experience in responsible positions on the campus newspaper. Conferences with the instructor on editing, makeup, and management problems.

175. Typography and Printing Processes. (2) W. Haymore

Study of type styles and sizes, mechanical equipment, letterpress and offset printing, engraving processes and technical aspects of publishing; laboratory practice in printing methods.

177. Printing Workshop. (Arr.) A.W.S. Prerequisites: Journalism 175 and permission of instructor. Haymore

Supervised practice in the mechanical processes of printing, including typesetting, page makeup, and presswork.

179. City Room Staff. (2-4) A.W.S. Prerequisites: Journalism 62 and approval of instructor. Staff

An internship course designed to give experience in gathering and writing news under actual newspaper office conditions. With supervision from staff members of the daily press, students will gather, write, and edit news from regular beats for a minimum of 30 hours per credit.

180. Industrial Magazine Editing. (3) S. Staff

Principles and techniques of layout and design as related to the editing of magazines and special booklets. Study of formats, titles, engraving, color utilization, and printing processes. Emphasis will be given to gathering and processing material for employee magazines.

185. News Editing. (5) A. Prerequisite: Journalism 61. Staff

Copyreading, proofreading, and headline writing. Editing of both telegraph copy and local copy for building of newspaper pages. Theory and practice of makeup. Special problems in handling election news, use of pictures, sectional stories, and special editions.

189. Community Newspaper Workshop. (2-4) A.W.S. Prerequisite: Approval of instructor. Staff

An internship course under supervision of the editor of a weekly newspaper in the vicinity of Provo, giving practical experience in reporting, editing, and management functions for a minimum of 30 hours per credit.

191. Projects in Editorial Journalism. (Arr.) A.W.S. Prerequisite: Permission of instructor. Staff

192. Projects in Radio-TV Journalism. (Arr.) A.W.S. Prerequisite: Permission of instructor. Staff

193. Projects in Public Relations. (Arr.) A.W.S. Prerequisite: Permission of instructor. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

233. Teaching Journalism in the Secondary Schools. (3) S. Smith
(See also Education: Instruction 233.)

241. Research Methods in Mass Communications. (3) A. Smith

242. Mass Communications and Society. (4) W. Smith

250. Seminar in Mass Communications. (Arr.) A.W.S. Staff

278. Radio and Television in Education. (3) S. Tyndall
(See Education: Instruction 278.)

291, 292, 293. Special Studies in Journalism (Arr.) A.W.S. Smith

294. Readings in Mass Communications. (Arr.) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Landscape Architecture

(See courses in Horticulture and Horticultural Specialties.)

Latin

(See courses in Modern and Classical Languages and in Religion.)

L.D.S. Church Organization and Administration

(See courses in Religion.)

Library Science

Knight (Chairman, Library Reference Room).
Instructors: Chandler, R. Hansen, Purdy, Brace, G. D. Jenson, C. Flake, Thorne, and Berry.

The library science program is organized to fill the needs of school and public libraries, teachers, students who wish to become familiar with library use, and those who wish to do advanced study in a professional library school. All of the following courses will be taught one or more times during a two-year period, including summer sessions.

Lower Division Courses

11. Use of Books and Libraries. (2) A.W.S. Staff
The efficient use of library materials; the card catalog; use of general reference books (bibliographies, dictionaries, encyclopedias, and indexes); and making of bibliographies. (Recommended for all students, but especially for those who plan to minor in Library Science.)

Upper Division Courses

150. Classification. (3) W. Staff
Devoted to the theory and principles governing the classification of books according to the Dewey Decimal system. Practical problems in classifying books.

151. Cataloging. (3) S. Staff
An elementary course in cataloging of books. Catalog entries, author, subject and title. Laboratory period cataloging materials suitable for school and public libraries. Ability to use the typewriter is required. Both 150 and 151 must be taken to receive credit for either).

163. **Library Science for Teachers and Administrators. (3) A.** Staff
Emphasizes general organization and use of the school library, with units on aids for book selection and use of reference books. These courses will fill certification requirements for school librarians.

165. Selection and Use of Library Materials for the Elementary Schools. (3) W. Prerequisite: Library Science 163 or permission of instructor. Staff
Library Service in the elementary school will be considered especially as it concerns selection, acquisition, and use of library materials—books, periodicals, pictures, etc. Units on story selling and library instruction for elementary school pupils will be included.

166. Audio-Visual Materials. (3) A.W.S. Staff
An introduction to the audio-visual field. Sources, selection, evaluation, and utilization of audio-visual materials in

the classroom in accordance with modern psychology of learning. Operation and care of projection equipment. Laboratory work will include making and collecting teaching materials such as flat pictures, slides, filmstrips graphs, and charts. (See General Instruction 175.)

167. **Selection and Use of Library Materials for the Secondary School.** (3) S. Prerequisite: Library Science 163, or permission of instructor. Staff

This course is planned to provide a general survey of books and literature for young people including reading references, book selection, and book reviewing. Selection and use of periodicals and other library materials as they relate to the curriculum will be considered.

168. **Children's Literature.** (3) A.W.S. Staff

(See Elementary Instruction 110.)

This course is planned to provide a general survey of books and literature for young people including reading references, book selection, and book reviewing. Selection and use of periodicals and of other library materials as they relate to the curriculum will be considered. (See Elementary Instruction 110.)

170. **Introduction to Bibliography.** (3) S. Staff

An intensive study of the content and use of general reference books such as encyclopedias, dictionaries, periodical indexes, yearbooks, directories, bibliographies, handbooks, atlases, and biography sources. Bibliographic form will be stressed and the reference department will serve as a laboratory.

Graduate Courses

250. **Problems in Acquisition and Organization of Library Materials.** (3) (Not given this year.) Staff

263. **Modern Library Practices.** (3) (Not given this year.) Staff

271. **Bibliography of the Sciences.** (3) (Not given this year.) Staff

272. **Bibliography of the Humanities.** (3) (Not given this year.) Staff

273. **Bibliography of the Social Sciences.** (3) (Not given this year.) Staff

290. **History of Books and Development of Libraries in Our Civilization.** (3) (Not given this year.) Staff

Linguistics

(See courses in Modern and Classical Languages.)

Management

(See courses in Industrial Management and Economics and Management of the Home)

Marketing

Professors: W. J. Tayor (chairman, 159 N), Boyle, E. M. Jenson, B. F. Larsen, R. L. Smith.

Associate Professors: Corbridge, Nelson.

Assistant Professors: M. S. Potter*, Shumway*, Tuttle.

Instructors: Davies, Jorgensen, Prestwich.

The marketing course is designed to prepare students for positions of management and executive responsibility in the fields of retailing, wholesaling, advertising, selling, sales management, industrial marketing, and market research.

The effective management of the dynamic forces affecting the modern business firm requires training and experience in appraising facts affecting business situations, and the organizing and expressing of such facts in sound business decisions and policies. Also, today's business leader must appreciate the importance of human relations in business dealings, both inside and outside the firm.

The marketing course provides this training and experience by a three-point program: First, the course provides the student with computational tools and knowledge with which to work and to understand the business environment. Second, he is assigned the solution of actual business problems and defends his decisions in oral and written reports. Third, classes are arranged to bring the student in working contact with executives of the business community; research projects and case problems develop from these contacts, as well as an ability to the part of the student to communicate effectively with men on the executive level. Also, as a part of this program, business leaders from all parts of the nation are brought to the campus to lecture and to confer with the students.

Required Courses and Suggested Sequence For Majors In Marketing

FRESHMAN AND SOPHOMORE YEARS

General University Requirements	Hours
English 1a, 1, 2 or 12, 3 or 13	9
Physical Education	3
Health	1
Physical Science	9
Biological Science	8
Social Science (History 70 or equivalent)	5
Humanities and Aesthetics	10
Religion	12
TOTAL	57

Preparation Courses for Major

Accounting 1, 2, and 35	15
Economics 1* and 75	10
Psychology 11*	5
TOTAL	30
GRAND TOTAL	87
Electives possible for students carrying 18 hours per quarter	21

*Apply toward general requirements in Social Science.

JUNIOR YEAR

General Requirements

Humanities and Aesthetics	5
Religion	6
TOTAL	11

Courses Required for Majors from other Departments

Industrial Management 120 (Managerial Control)	5
Industrial Management 130 (Industrial Management)	5
Economics 145 (Intermediate Theory)	5
Finance & Banking 151 (Corporation Finance)	5
Finance & Banking 154 (Business Law)	5
Psychology 165 (Psychology of Business) or Psychology 22 (Applied Psychology)	3
TOTAL	28

Major Requirements

Marketing 107 (Principles)	5
Marketing 151 (Consumer Economics)	3
Marketing 170 (Lectures on Executive Policy)	1
TOTAL	9
GRAND TOTAL	48
Electives possible to students carrying 18 hours per quarter	6

SENIOR YEAR

General Requirements

Religion	6
TOTAL	6

Major Requirements

Marketing 108 (Fundamentals of Selling)	5
Marketing 157 (Problem in Marketing)	5
*Marketing 158 (Retail Store Management)	*5
Marketing 159 (Advertising)	5
*Marketing 165 (Sales Management)	*5
Marketing 171 (Lectures on Executive Policy)	1
TOTAL	21
GRAND TOTAL	27

*Students are required to take only one of these courses.

Electives possible to students carrying 18 hours per quarter	27

Elective Courses Recommended:

Marketing 10, 190, 191, and 192.
Economics 2, 74, and 167.
Finance & Banking 153, 254.
Secretarial Training 31.
English 22.

Lower Division Courses

10. **Theory and Practice of Design.** (2) A.W.S. Stewart, Staff
(See Art 10.)

23. **Geography of Economic Products.** (3) S. Tuttle
(See Geography 23.)

39, 40. **Commercial Art.** (2) A.W.S. Jenson, Stewart
(See Art 39, 40)

55. **Textiles.** (3) A.W.S. Potter
(See Clothing and Textiles 60.)

Upper Division Courses

107. **Principles of Marketing.** (5) A.W.S. Staff

Deals with the problem of getting commodities from the point of production to the ultimate consumer. It includes a study of the management problems of the institutions involved, such as retailers, wholesalers, brokers, etc. It also treats in an analytical manner the functions performed by the institutions, such as buying, selling, market research, etc.

108. **Fundamentals of Selling and Administration.** (5) A.W.S. Taylor

This course treats selling in a broader sense than is usually implied in selling a product or a service. Problems presented in the course will provide students with the opportunity of analyzing the human factors and the motivations involved in administration and business dealings. Emphasis will be given to the solution of such problems, to procedures involved in communicating with various types of customers, and to dealing with associates in an administrative program.

140. Lettering. (2) A.W. Staff
Skills and letter structure for lettering reproduced for printed page. (See Art 140.)

141. Layout. (2) S. Prerequisite: Art 140. Staff
(See Art 141.)

151. Economics of Consumption. (3) A.W. Prestwich, Boyle
This course discusses the market from the point of view of its strengths and weaknesses in providing the consumer with maximum utility and satisfaction. The consumer point of view is stressed throughout.

152. Radio Advertising. (5) W. Staff
(See Journalism 149.)

156. Transportation Problems. (5) W. Davies
(See Economics 156.)

157. Problems in Marketing. (5) W.S. Prerequisites: Marketing 107. Prestwich, Taylor
This course introduces the student to the marketing program which brings him in contact with business cases and business executives. By the use of the case method, the student analyzes marketing management problems from the perspectives of the manufacturer, the wholesaler, the retailer, and financier and integrates all of these views into the focus of business decisions and policies.

158. Retail Store Management. (5) A.W. Prerequisite: Marketing 107. Prestwich, Staff
Problems are given to the student which provide him with the opportunity of analyzing such subjects as store organization; financing; personnel; store operation; and the buying, selling, and pricing of merchandise. He is provided with frequent conference opportunities with business executives in processing these business problems into practical decisions and policies.

159. Advertising. (5) W. Taylor, Staff
The subject of advertising is dealt with in a comprehensive manner. Specifically, the course directs study to the different levels of selling and considers the respective advertising problems. The fundamentals of good copy, visualization, layout, technical problems of production, and the planning and execution of the complete campaign, including advertising research and testing, are given analytical emphasis. (See Journalism 139.)

162. Economics of Clothing and Household Textiles. (2) W. Prerequisite: Clothing and Textiles 55. Jorgensen
(See Clothing and Textiles 170.)

163. Personnel Management. (5) A.S. R. L. Smith
(See Business Management 163.)

165. Sales Management. (5) A.S. Boyle
Deals in problems about the methods of selecting, training, and paying salesmen; the technique of making area quota surveys; and the sales planning necessary to fit a sales organization to the market most efficiently. The principles of managing a sales force are also treated.

168. Cooperative Marketing. (3) A. Corbridge
Organization, financing, management, price policy, membership and public relations. Factors affecting the success of cooperative associations. (See Agricultural Economics 168.)

169. Marketing Livestock Products. (3) W. Nelson
(See Agricultural Economics 169.)

170, 171. Lectures in Executive Policy. (1) S. Taylor
Successful businessmen from throughout the nation will discuss the challenges, opportunities and significant developments in their respective fields.

190, 191, 192. Problems in Business Management. (3-3-3) A.W.S. Staff
A one-year inter-departmental course limited to seniors in the College of Commerce. Deals with problems requiring analysis, decision, and action on the part of business executives at the operating level in management. The problems cut across subject matter lines and involve marketing, financial, production, personnel, control and other issues all simultaneously pertinent to the development of realistic recommendations. Extensive use of business cases requiring student analysis, group discussions, and written reports will form the principal basis for the conduct of the course.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

204. Advanced Marketing Problems. (Arr.) A.W.S. Prerequisite: 107. Staff

205. Special Problems in Retailing. (Arr.) A.W.S. Prerequisite: 158. Staff

206. Special Problems in Marketing and Marketing Analysis. (Arr.) A.W.S. Prerequisites: Marketing 107; Economics 75. Staff

285. Techniques and Practice of Market Research. (3) A.W.S. Prerequisites: Marketing 107 and Economics 75. Staff

300. Thesis for Master's Degree. Staff

Mathematics

Professor: M. Marshall.

Assistant Professors: H. Fletcher, Jr., D. H. McNamara, J. L. Olpin.

Instructors: C. E. Dean*, F. L. Haupt.

Students who major in mathematics have one of the following course sequences prescribed: Mathematics 11, 12, 13, 91, 92, 93, 111, 112, 113, or 15, 16, 17, 98, 99, 100, 113. In addition to either sequence a student must present any nine hours of the following: 131, 132, 133, 161, 162, 163, 191, 192, 193.

Mathematics 1, 35, and 152s may not be included in the major or minor requirements.

It is expected that a student intending to major in mathematics shall have met the general entrance requirements of the College of Physical and Engineering Sciences as stated on page 455 of this Catalog.

Mathematics is one of the subjects comprising the composite major in mathematics and the Physical Sciences designed for prospective teachers. These requirements can be found on page 432.

Lower Division Courses

1. **Algebra.** (5) A.W.S. Prerequisite: One year of high school algebra and one year of plane geometry. A student may not elect this course for credit if he has had credit in high school for one and one-half or more units of algebra. Staff

3. **Solid Geometry.** (3) S. Prerequisites: Mathematics 1 or its equivalent and plane geometry.

11. **College Algebra.** (5) A.W.S. Prerequisite: Mathematics 1 or its equivalent. Staff

12. **Plane Trigonometry.** (5) A.W.S. Prerequisite: Mathematics 1 or its equivalent. Staff

13. **Analytic Geometry.** (5) S. Prerequisites: Mathematics 11 and 12. Staff

A study of rectangular coordinates, straight line, circle, parabola, ellipse, hyperbola, transfer of coordinates, etc.

15, 16, 17. Analytic Geometry and Calculus. (5-5-5) A.W.S. Admission only by permission of instructor. Staff

The analytic geometry of the straight line and circle, the differential calculus of algebraic functions with applications, an introduction to integration, the analytic geometry of conic sections, a brief treatment of theoretical trigonometry, the differential calculus of trigonometric, logarithmic, and expontential functions. A knowledge of numerical trigonometry is desirable though not necessary.

35. **Mathematics of Business.** (3) W. Prerequisites: Mathematics 1 or equivalent. Hoyt
Application of algebra to general business problems such as annuities, amortization, capitalization, depreciation, sinking fund, bond values, and building and loan associations.

91, 92, 93. **Differential and Integral Calculus.** (4-4-4) A.W.S. Prerequisite: Mathematics 13. Staff
The processes of differentiation and integration are developed and applied to problems in geometry, mechanics, and physics.

98, 99. **Calculus and Differential Equations.** (5-5) A.W. Prerequisite: Mathematics 15, 16, 17. Marshall
A systematic treatment of integration, application of the definite integral to topics in mathematics and physics, convergence of infinite series, expansion in Taylor's series, introduction to partial differention and multiple integration.

Upper Division Courses

100. **Differential Equations.** (5) S. Prerequisite: Mathematics 98 or 99. Marshall
Study of ordinary differential equations with applications.

105, 106, 107. **Engineering Mathematics.** (3-3-3) A.W.S. Prerequisites: Mathematics 93 or 99. Fletcher
Differential equations, fourier series, complex variables, LaPlace transform, vector analysis, and partial differential equations.

111, 112. **Differential Equations.** (3-3) A.W. Prerequisite: Mathematics 91, 92, 93 or 98, 99, 100. Marshall
Differential equations of the first order, linear differential equations, total and partial differential equations with numerous applications to physics. Junior or senior year.

113. **Applied Mathematics.** (3) S. Prerequisite: Mathematics 112. Marshall
Advanced mathematics for students of physics and engineering with emphasis on Vector Analysis.

121, 122, 123. **Theoretical Mechanics.** (4-4-4) A.W.S. Prerequisites: Mathematics 91, 92, 93 or 98, 99, 100; Physics 41, 42, 43. Gardner
Fundamental principles of mechanics and their applications to physical problems.

131. **Theory of Equations.** (3) A. Prerequisites: Mathematics 93 or 99. Fletcher
Elementary properties of equations, location of roots of equations, elimination, substitute groups, etc.

132. Introduction to Higher Algebra. (3) W. Fletcher
This course deals with elementary properties of integers and rational, real, and complex numbers; the basic theory of polynomials and groups; and the algebraic properties of n-dimensional vector spaces.

133. Introduction to Higher Algebra. (3) Staff
Topics covered include linear transformations and matrix theory, applications to simultaneous linear equations, eigenvectors and eigenvalues, and the reduction of quadratic forms.

152s. Elementary Statistics. (5) A.W.S. Staff
Graphic and tabular presentation, measures of central tendency, variability, probability, Chi-square, null hypothesis, linear correlation. (This course does not count towards a major or minor in Mathematics.) (See Education: Research and Psychological Services 115.)

161, 162, 163. Statistics. (3-3-3) A.W.S. (Not given this year)
Prerequisites: Math 91, 92, 93, or 98, 99, 100.
Probability, General Distribution functions, Estimators, Sampling Theory, Multivariate Normal Distribution, Confidence Intervals, Test of Hypotheses, Regression Theory, Analysis of Variance Experimental Design.

191, 192, 193. Advanced Calculus. (3-3-3) A.W.S. Gardner

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201, 202, 203. Theory of Functions of a Real Variable. (2-2-2) A.W.S. (Not given this year.) Staff

211, 212, 213. Partial Differential Equations. (3-3-3) A.W.S. (Not given this year.) Staff

221, 222, 223. Methods in Mathematical Physics. (3-3-3) A.W.S. Gardner

231, 232, 233. Functions of a Complex Variable. (2-2-2) A.W.S. Marshall

292, 293, 294. Readings in Mathematics. (1-3) A.W.S.
Marshall, W. Hales, Eastmond,
Gardner, R. Hales, Fletcher

300. Thesis for Master's Degree.

Mechanical Engineering Science

(See courses in Engineering Sciences.)

Medical Technology

(See College of Biological and Agricultural Sciences.)

Modern and Classical Languages

Professors: Barker (emeritus), Cummings (emeritus), deJong, Lee*, Nibley, Sperry.

Associate Professors: Watkins (chairman, 326 McK), Rogers.

Assistant Professors: J. R. Clark III, H. D. Taylor, Valentine, Wilkins.

Instructors: Gibson*, Green*, Gubler, Rasmussen, Smithson.

Supervisor of Language Laboratory: Gibson.

Every degree of Bachelor of Arts and Master of Arts granted by the University requires the completion of the equivalent of at least 24 hours of an approved foreign language.

For students who have had the opportunity to study a foreign language in their high school career, the 24-hour language requirement for the A.B. degree may be proportionately reduced for each unit of high school work completed. Students who have had one year of secondary school language work will be placed in the second quarter of the language. Those with two years of high school work will register for the third quarter, unless they are given permission by the department to register for second year college work. Students with three years of high school work will be permitted to register for the first quarter of second-year college work.

Students who have had foreign residence may, with the consent of the department, obtain up to 24 hours of special foreign language credit. This may be done in two ways: (1) by successfully completing a more advanced course in the language; (2) by passing a series of examinations administered by the language department.

In French, Italian, Portuguese, Spanish, German, Latin, Greek, Hebrew, and Russian, the department offers programs leading to a University and departmental major or minor with the Bachelor of Arts degree. The requirement for a major is 30 hours of upper division credit. The requirement for a minor is 20 hours of upper division credit.

The department reserves the right to specify certain courses to be used toward a degree in these foreign languages. Areas that serve as minors include a second foreign language, English, one of the fine arts, history, political science, sociology, etc.

The department has one of the most modern and best equipped language laboratories in the United States. All presently available electronic recording and playback equipment is at the disposal of more than 60 students every hour, permitting a strong emphasis to be placed on the acquiring of a good pronunciation. The tape library contains some of the best dramatic and poetic works in the world's chief languages.

Prospective graduate students are reminded that a second, and sometimes a third, language will be required of them in graduate school. It is advisable that work in at least one other language be started before the junior year. Graduate students who have the consent of the instructor may register for certain undergradutae literature courses.

MODERN LANGUAGES

French

The requirement for a major is 30 hours of upper division courses which must include French 121, 122, 123, and 9 hours from the following: French 111, 112, 113, 131, 132, 133.

The requirement or a minor is 20 hours of upper division courses which must include 9 hours from the following groups: French 111, 112, 113, 121, 122, 123, 131, 132, 133.

Lower Division Courses

1, 2, 3. **First Year French.** (5-5-5) A.W.S. (GER-HA)
Clark, Smithson, Staff

Designed for those who have had no French. Pronunciation, reading. the fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.

Upper Division Courses

101, 103, 105. Second Year French Reading and Conversation (3-3-3) A.W.S. Prerequisite: French 3, or three units of French in high school, or consent of instructor. Must be taken with 102, 104, 106. Clark, Smithson

102, 104, 106. Second Year French Conversation and Grammar (2-2-2) A.W.S. Prerequisite: French 3, or three units of French in high school. Must be taken with 101, 103, 105.
Clark, Smithson

107, 108, 109. Individual Study in French. (1-3, 1-3, 1-3) A.W.S. Prerequisite: 15 hours of French and the consent of the instructor. Staff

Assignments are made to fit the individual needs of students.

111, 112, 113. Survey of French Literature and Culture. (3-3-3) A.W.S. (†GER-HA) Prerequisite: French 105, 106, or the consent of the instructor. Clark

A general view of the literary periods, movements, and social background, with representative readings.

115, 116, 117. Gospel in French. (2-2-2) A.W.S. Prerequisite: 25 hours of French or the consent of the instructor. Clark

Discussions of the gospel message and the reading of scripture in French. The aim of this course is to give the student practice in conversation and to widen his knowledge of the Gospel. (See Church Administration 125, 126, 127.)

121, 122, 123. French Composition and Conversation. (3-3-3) A. W.S. Prerequisite: 25 hours of French or the equivalent. Cummings

131, 132, 133. Masterpieces of French Literature. (3-3-3) A.W.S. (†GER-HA) Prerequisites: 30 hours of French or consent of instructor. Clark

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201. French Composition and Conversation. (3) S. Clark

231. Old French Literature. (3) W. Clark

233. French Literature of the Renaissance. (3) S. Clark

234. French Literature of the 17th Century. (3) A. Cummings

235. French Literature of the 18th Century. (3) W. Cummings

237. French Literature of the 20th Century. (3) W. Cummings

241. Moliere. (3) W. Clark

251. French Drama of the 19th Century. (3) S. Cummings

252. Modern French Drama. (3) W. Clark

253. French Novel of the 19th Century. (3) S. Clark

254. Modern French Novel. (3) A. Cummings

261. Introduction to French Civilization. (3) A. Cummings

291, 292, 293. French Seminar. (2-2-2) A.W.S. Cummings
Clark

300. Thesis for Master's Degree. Staff

German

The requirement for a major is 30 hours of upper division courses which must include German 121, 122, 123, and 9 hours from the following: German 111, 112, 113, 131, 132, 133.

The requirement for a minor is 20 hours of upper division courses which must include 9 hours from the following groups: German 111, 112, 113, 121, 122, 123, 131, 132, 133.

Lower Division Courses

1, 2, 3. First Year German. (5-5-5) A.W.S. (GER-HA) Rogers, Watkins, Gubler, Staff

Designed for those who have not had German. Pronunciation, reading, fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.

Upper Division Courses

101, 103, 105. Second Year German Reading and Conversation. (3-3-3) A.W.S. Prerequisite: German 3, or three units of German in high school, or consent of instructor. Must be taken with 102, 104, 106. Rogers, Watkins, Gubler

102, 104, 106. Second Year German Conversation and Grammar. (2-2-2) A.W.S. Prerequisite: German 3, or three units of German in high school, or consent of instructor. Must be taken with 101, 103, 105. Rogers, Watkins, Gubler

107, 108, 109. Individual Study in German. (1-3, 1-3, 1-3) A. W.S. Prerequisites: 15 hours of German and consent of the instructor. Staff

Assignments are made to fit the individual needs of the student.

111, 112, 113. Survey of German Literature and Culture. (3-3-3) (Not given this year.) (†GER-HA) Prerequisite: German 105, 106. Rogers Watkins

A general view of literary periods, movements, and social background, with representative readings.

115, 116, 117. Gospel in German. (2-2-2) A.W.S. Prerequisite: 15 hours of German or the consent of the instructor. Watkins

Discussions of the gospel message and the reading of scripture in German. The aim of this course is to give the student practice in conversation and to widen his knowledge of the Gospel. (See Church Administration 131, 132, 133.)

121, 122, 123. German Composition and Conversation. (3-3-3) A.W.S. Prerequisite: 25 hours of German or the equivalent. Watkins

131, 132, 133. Masterpieces of German Literature. (3-3-3) A.W.S. (†GER-HA) Prerequisites: 30 hours of German or consent of instructor. Rogers, Watkins, Gubler

167, 168, 169. Scientific German. (3-3-3) (Not given this year.) Gubler

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201. German Composition and Conversation. (3) A. Watkins

237. Contemporary German Literature. (3) A. Rogers

241. Lessing. (3) A. de Jong

242. Schiller. (3) W. de Jong

243. Goethe. (3) S. de Jong

251. The German Drama. (3) A. Rogers

254. The German Novel. (3) W. Rogers

256. The German Novelle. (3) S. Rogers

258. German Lyric Poetry. (3) W. de Jong

261. Cultural History of Germany. (3) W. Watkins

294. Seminar in Literature. (2) S. Staff

300. Thesis for Master's Degree. Staff

Italian

For Major and Minor Requirements Consult Department Chairman

Lower Division Courses

1, 2, 3. First Year Italian. (5-5-5) A.W.S. (GER-HA) Watkins, Gibson

Special attention to accurate pronunciation for the benefit of the students of music and art for whom Italian has special interest and value. Grammar and graded reading.

Upper Division Courses

101, 103, 105. Second Year Italian. (3-3-3) A.W.S. Prerequisite: Italian 3 or two units of Italian in high school. Watkins

102, 104, 106. Second Year Italian. (2-2-2) A.W.S. Prerequisite: Italian 3 or three units of Italian in high school. Watkins

107, 108, 109. Individual Study in Italian. (1-3, 1-3, 1-3) A.W.S. Prerequisite: 15 hours of Italian or the equivalent, and the consent of the instructor. Watkins

Assignments made to fit the individual needs of the student.

111, 112, 113. Masterpieces of Italian Literature. (3-3-3) A.W.S. (†GER-HA) Prerequisites: Italian 105 and 106, or consent of instructor. Watkins

Extensive and intensive reading from Italian masterpieces.

Japanese

Lower Division Courses

1, 2, 3. First Year Japanese. (5-5-5) A.W.S. (GER-HA) Staff

Constant study of the writing systems. Fundamentals of grammar and the building of a substantial vocabulary. Easy conversation and composition throughout.

Upper Division Courses

101, 103, 105. Second Year Japanese. (3-3-3) A.W.S. Prerequisite: Japanese 3. Staff

102, 104, 106. Second Year Japanese. (2-2-2) A.W.S. Prerequisite: Japanese 3. Staff

107, 108, 109. Individual Study in Japanese. (1-3, 1-3, 1-3) A.W.S. Prerequisites: 15 hours or more of Japanese and the consent of the instructor. Staff

Portuguese

The requirement for a major is 30 hours of upper division courses which must include Portuguese 111, 112, 113, 121, 122, 123.

The requirement for a minor is 20 hours of upper division courses which must include 9 hours of the following groups: Portuguese 111, 112, 113, 121, 122, 123.

Lower Division Courses

1, 2, 3. First Year Portuguese. (5-5-5) A.W.S. (GER-HA) deJong

A beginning course. Pronunciation, conversation, reading, and the fundamentals of grammar. Special attention to Portuguese as the language of Brazil.

Upper Division Courses

101, 103, 105. Second Year Portuguese. (3-3-3) A.W.S. Prerequisite: Portuguese 3 or three units of Portuguese in high school. Staff

102, 104, 106. Second Year Portuguese. (2-2-2) A.W.S. Prerequisite: Portuguese 3 or two units of Portuguese in high school. deJong

107, 108, 109. Individual Study in Portuguese. (1-3, 1-3, 1-3) A.W.S. Prerequisite: 15 hours of Portuguese or the equivalent and the consent of the instructor. de Jong

111, 112, 113. Masterpieces of Brazilian and Portuguese Literature. (3-3-3) A.W.S. (†GER-HA) Prerequisites: Portuguese 105 and 106, or consent of instructor. de Jong

121, 122, 123. Portuguese Composition and Conversation. (3-3-3) A.W.S. Prerequisites: Portuguese 104 and 106; 25 hours of Portuguese or the equivalent. de Jong

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201, 202, 203. Portuguese Composition and Conversation. (3-3-3) A.W.S. de Jong

231. Introduction to Portuguese Literature. (3) A. de Jong

232. Portuguese Literature. (3) W. de Jong

233. Contemporary Portuguese Literature. (3) S. de Jong

255. Introduction to Brazilian Literature. (3) A. de Jong

256. Brazilian Literature. (3) W. de Jong

257. Contemporary Brazilian Literature. (3) S. de Jong

294. Portuguese Seminar. (3) S. de Jong

296. Individual Study. (2) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Russian

For Major and Minor Requirements Consult Department Chairman

Lower Division Courses

1, 2, 3. First Year Russian. (5-5-5) A.W.S. (GER-HA) Gubler
Designed for those who have had no Russian. Pronunciation, reading, the fundamentals of grammar, and the building of a substantial reading vocabulary.

Upper Division Courses

101, 103, 105. Second Year Russian. (3-3-3) A.W.S. Prerequisite: Russian 3. Gubler
Russian grammar.

102, 104, 106. Second Year Russian. (2-2-2) A.W.S. Prerequisite: Russian 3. Gubler
Readings from Russian Literature.

107, 108, 109. Individual Study in Russian. (1-3, 1-3, 1-3) A.W.S. Prerequisite: 15 hours of Russian and the consent of the instructor. Assignments are made to fit individual needs. **Gubler**

111, 112, 113. Masterpieces of Russian Literature. (3-3-3) A.W.S. (†GER-HA) Prerequisites: Russian 105, 106, or consent of the instructor. Gubler

Spanish

The requirement for a major is 30 hours of upper division courses which must include Spanish 121, 122, 123, and 9 hours from the following: Spanish 111, 112, 113, 131, 132, 133. Spanish 157, 158, 159 are strongly recommended.

The requirement for a minor is 20 hours of upper division coursese which must include 9 hours from the following groups: Spanish 111, 112, 113, 121, 122, 123, 131, 132, 133.

Lower Division Courses

1, 2, 3. First Year Spanish. (5-5-5) A.W.S. (GER-HA) Taylor, Valentine, Wilkins, Staff

Designed for those who have not had Spanish. Pronunciation, reading, and the fundamentals of grammar. Special emphasis on conversation and the building of a substantial vocabulary.

Upper Division Courses

101, 103, 105. Second Year Spanish Reading and Conversation. (3-3-3) A.W.S. Prerequisite: Spanish 3, or three units of Spanish in high school, or consent of instructor. Must be taken with 102, 104, 106. Taylor, Valentine, Wilkins, Staff

102, 104, 106. Second Year Spanish Conversation and Grammar. (2-2-2) A.W.S. Prerequisite: Spanish 3, or three units of Spanish in high school, or consent of instructor. Must be taken with 101, 103, 105. Taylor, Valentine, Wilkins, Staff

107, 108, 109. Individual Study in Spanish. (1-3, 1-3, 1-3) A.W.S. Prerequisite: 15 credit hours of Spanish and the consent of the instructor. Staff

Assignments are made to fit the individual needs of the student.

111, 112, 113. Survey of Spanish Literature and Culture. (3-3-3) A.W.S. (†GER-HA) Prerequisite: Spanish 105, 106 or the consent of the instructor.

115, 116, 117. Gospel in Spanish. (2-2-2) A.W.S. Prerequisite: 25 hours of Spanish or the consent of the instructor. Valentine

Discussions of the gospel message and the reading of the scriptures in Spanish. The aim of this course is to give the student practice in conversation and to widen his knowledge of the Gospel. (See Church Administration 137, 138, 139.)

121, 122, 123. Spanish Composition and Conversation. (3-3-3) A.W.S. Prerequisites: Spanish 103 and 104. Wilkins

131, 132, 133. Masterpieces of Spanish and Spanish American Literature. (3-3-3) A.W.S. (†GER-HA) Prerequisites: 30 hours Spanish or consent of instructor. Valentine, Taylor, Wilkins

151. Drama of the 20th Century in Spain. (3) W. Prerequisites: Spanish 105 and 106, or consent of the instructor. Taylor

157. Introduction to Spanish-American Literature and Culture. (3) A. Wilkins

158. Modern Mexican Novel. (3) W. Prerequisites: Spanish 105 and 106, or consent of the instructor. Wilkins

Lectures on and class discussion of Nineteenth and Twentieth Century Mexican novels with emphasis on novels written since the Revolution of 1910.

159. Modern South American Novel. (3) S. Prerequisites: Spanish 105 and 106, or consent of the instructor. Wilkins

Lectures on and class discussion of Nineteenth and Twentieth Century South American novels.

171. Spanish Seminar. (3) S. Prerequisite: Consent of department head. Taylor, Valentine, Wilkins

Research problems for advanced students.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. Spanish Composition and Conversation. (3) A. Taylor, Wilkins

231. Medieval Literature. (3) A. Prerequisite: 133 or equivalent. Taylor

232. Cervantes' Don Quixote. (3) (Not given this year.) Prerequisite: 133 or equivalent. Valentine

233. Drama of the Spanish Golden Age. (3) W. Prerequisite: 133 or equivalent. Taylor

236. Spanish Literature of the 19th Century. (3) S. Prerequisite: 133 or equivalent. Valentine

237. Literature of the 20th Century in Spain. (3) W. Prerequisite: 133 or equivalent. Taylor

251. Drama of the 20th Century in Spain. (3) S. Prerequisite: 133 or equivalent. Taylor

252. Spanish Novel of the 19th Century. (3) A. Prerequisite: 133 or equivalent. Taylor

255. Spanish-American Poetry. (3) Valentine

261. Hispanic American Civilizations of the Colonial Period. (3) Wilkins

262. Hispanic American Civilizations of the Modern Period. (3) Wilkins

263. Hispanic American Essay. (3) Wilkins

294. Spanish Seminar. (3) A.W.S. Taylor, Wilkins

300. Thesis for Master's Degree. Staff

CLASSICAL LANGUAGES

Latin

For Major and Minor Requirements Consult Department Chairman

Lower Division Courses

1, 2, 3. First Year Latin. (5-5-5) A.W.S. (GER-HA) Clark,
Designed for those who have not had Latin. Mastery of pronunciation, declensions, and conjugations. Correlation of Latin originals with English derivatives. Graded reading. Characteristics of Roman civilization.

Upper Division Courses

101, 103, 105. Second Year Latin. (3-3-3) A.W.S. Prerequisite: Latin 3 or three units in high school. Clark

Readings from Caesar, Livy, etc., with a review and continuation of grammar.

107, 108, 109. Individual Study. (2-3, 2-3, 2-3) A.W.S. Clark

140. Pre-legal Latin. (2 or 3) A. Clark
Recommended for pre-legal students. Admission by consent of instructor.

141, 142. Pre-medical Latin and Greek. (2 or 3) W.S. Clark
Recommended for pre-medical students. Admission by consent of instructor.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

267, 268, 269. Cicero; Virgil; Latin Style and Composition. (3-3-3) A.W.S. Clark

277, 278, 279. Horace; the Latin Poets; the Latin Dramatists. (3-3-3) A.W.S. Clark

281, 282, 283. The Latin Fathers. (3-3-3) A.W.S. Prerequisite: Consent of instructor. Nibley

300. Thesis for Master's Degree. Staff

Greek

For Major and Minor Requirements Consult Department Chairman

Lower Division Courses

1, 2, 3. Elementary Greek. (5-5-5) A.W.S. (GER-HA) Nibley

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

264, 265, 266. Advanced Readings in Greek .(3-3-3) A.W.S. Prerequisite: Consent of instructor. Nibley

267, 268, 269. The Greek New Testament. (3-3-3) A.W.S. Prerequisite: One year of Greek. Nibley

271, 272, 273. Individual Study in Greek. (2-3, 2-3, 2-3) A.W.S. Nibley

277, 278, 279. Greek Prose Writers. (2-3, 2-3, 2-3) A.W.S. Prerequisite: Two years of Greek. Nibley

300. Thesis for Master's Degree. Staff

Semitics

Hebrew, Aramaic, Syraic, Akkdadian, Egyptian

(For Semitic languages other than Arabic, see Division of Religion, Semitic Languages. The courses in Semitic Languages carry credit in religion, and fulfill the language requirements for the A.B. degree.)

Lower Division Courses

1, 2, 3. First Year Arabic. (5-5-5) A.W.S. (GER-HA) Nibley
The modern spoken language. Designed for those who have had no Arabic. (See Biblical Languages 261, 262, 263.)

Graduate Courses

(See Archaeology or Bible and Modern Scripture for courses in Hebrew, Aramaic, Syraic, Akkadian, and Egyptian.)

LINGUISTICS

Lower Division Course

60. **Practical Phonetics.** (3) A.W.S. de Jong
The elementary principles of speech mechanics in their relation to correct diction. (See also Speech 60.)

Upper Division Courses

101. **The Literary Use of Language.** (2) A. No prerequisites. Cummings

160. **Advanced Phonetics.** (3) W. de Jong

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201. **Introduction to Language Science.** (3) S. Cummings

221. **Studies in Criticism.** (3) A. Cummings

231. **Introduction to Romance Philology.** (3) A. Clark

246. **Old French Morphology and Phonology.** (3) A. Clark

251. **History of the Spanish Language.** (3) W. Clark

266. **Gothic and Introduction to Comparative Germanic Grammar.** (5) W. Watkins

267. **Old High German and Old Saxon.** (3) W. Watkins

268. **Middle High German.** (3) A. Watkins

291. **Seminar in Philology.** (2) S. Staff

Music

Professors: Halliday (chairman, 250 C), de Jong, Jeppersen-Madsen (emeritus), Franklin Madsen (emeritus).

Associate Professors: Earl, Gates, Sardoni.

Assistant Professors: Buggert (emeritus), Gulbrandsen, W. F. Hanson (emeritus), Keeler, H. Laycock, R. Laycock, F. D. Madsen, Summerhays (emeritus), Wakefield, N. Weight, R. Woodward.

Instructors: Ballou, Bos, Brownlee, C. Cannon, Curtis, Edlefsen, Fitzroy, Fuerstner, McAllister (emeritus), E. Nelson, Nordgren.

MUSIC MAJORS

A baccalaureate degree in music can be taken with a major in Music Applied, Music Theory, or Music for Secondary Teachers. The curriculum for a major in Music Applied or Music Theory leads to the Bachelor of Arts degree. The curriculum for a major in Music for Secondary Teachers leads to either the Bachelor of Arts or the Bachelor of Science degree.

MUSIC MINORS

Any twenty hours of music constitutes a graduation minor.

Prospective elementary teachers who desire a minor in music should present credit in the following courses: Music General 1 (3 hours); Music General 11 and 12 or Music Applied 79- and 80-p (piano) (4 hours total); Music Education 4 (1 hour); Music Theory 21 and 22 (10 hours total); Music Applied, Ensembles (band, chorus, orchestra) (3 hours total); L.D.S. Church Organization and Administration 157 (2 hours).

Teaching Minors in Music

A—Instrumental:

Prospective secondary teachers who desire a teaching minor in music (instrumental) must present credit in the following courses: Music General 1 or Musicology 184 (3 hours); Music Theory 21 (5 hours); Music Applied, Ensembles (band, orchestra) (6 hours total); L.D.S. Church Organization and Administration 157 and 161 (4 hours total); plus ten hours from the following courses: Music Education 110, 111, 112, 115, 116, 117, 125; Music Applied 79-, 80-, 81-p.

B—Vocal:

Prospective secondary teachers who desire a teaching minor in music (vocal) must present credit in the following courses: Music General 1 or Musicology 184 (3 hours); Music Theory 21 (5 hours); Music Applied, Ensembles (chorus) (6 hours); L.D.S. Church Organization and Administration 157 and 161 (4 hours total); plus ten hours from the following courses: Music Education 126, 128; Music Applied 79-, 80-, 81-p.

C—Instrumental-Vocal:

Prospective secondary teachers who desire a teaching minor in music (instrumental-vocal) must present credit in the following courses: Music General 1 (3 hours); Music Education 4, 105, 106, (3 hours total); Music Education 110 and 111 (6 hours total); Music Theory 21 (5 hours); Music Applied, Ensembles (band, chorus, orchestra) (7 hours total); L.D.S. Church Organization and Administration 157 and 161 (4 hours total).

DEGREE IN MUSIC APPLIED

To receive a Bachelor of Arts degree with a major in Music Applied a student must complete the following courses or their equivalent.

	hours
L.D.S. Church Organization and Administration 157, 161, 162	6
Musicology 184, 185	6
Music Theory 21, 22, 23, 121, 122	25
Music Applied, private instruction on major instrument	24
Music Applied, Ensembles	12

There are certain special classes for each type of major in Music Applied which must be taken in addition to the above requirements. These additional requirements are as follows:

Piano majors take Music Education 127 (3 hours) and Music Applied 191, 192 (2 hours total).
Organ majors take Music Theory 181 (2 hours) and Music Applied 195 (3 hours).
Woodwind majors take Music Education 110 (3 hours) and Music Education 115 (2 hours).
Brass majors take Music Education 111 (3 hours) and Music Education 116 (2 hours).
String majors take Music Education 112 (3 hours) and Music Education 117 (2 hours).
Voice majors take Music Education 128 (3 hours) and Music Applied 188, 189 (2 hours total).

Majors in Music Applied are required to complete four years of private instruction at Brigham Young University. At the end of each year of private instruction the student must take an examination on his major instrument or in voice to determine the level of his achievement and whether or not his progress has been satisfactory. Time and place will be announced. At the time of the examination, each candidate will submit to the jury a list of his repertoire in triplicate, indicating the compositions or studies he has prepared especially to perform at the examination. He will also demonstrate his ability to perform scales and arpeggios.

Majors in Music Applied must participate in a musical ensemble each quarter of their undergraduate training. In order to insure the maximum amount of training, it is the policy to have the student perform in several ensembles. Specifically, instrumental majors participate in at least one instrumental ensemble and one choral ensemble. Since there is more diversity in the choral type organizations, it is required that voice majors sing in at least two choral organizations.

Every major in music, regardless of his special area, must pass the piano proficiency examination appropriate to his specialty during the first quarter of residence or take either class piano or private instruction in piano until he passes the examination. Time and place for the examinations will be announced.

A major in Music Applied must accumulate at least sixty minutes of recital appearance time either as a soloist or a chamber music ensemble performer.

The following is recommended as the best sequence of courses for majors in Music Applied.

Freshman Year

	A.	W.	S.
Religion	2	2	2
English	3	3	3
Physical Education	1	1	1
Music Theory 21 22, 23	5	5	5
Music Applied 79-, 80-, 81-p	2	2	2
Music Applied, Ensembles	1	1	1
Health 1		1	
Electives (Music General 61, 62, 63, if needed)	2	2	2
or	3	3	3
Total hours	16	17	16
or	17	18	17

Sophomore Year

Religion	2	2	2
Language (first year)	5	5	5
Music Theory 121, 122	5	5	
Music Applied 82-, 83-, 84-p	2	2	2
Music Applied, Ensembles	1	1	1
General Education Requirements			5
Total hours	15	15	15

Junior Year

Religion (L.D.S. Church Organization and Administration 157, 161, 162)	2	2	2
Language (second year)	5	5	
Music Applied 179-, 180-, 181-p	2	2	2
Music Applied, Ensembles	1	1	1
General Education Requirements	5	6	11
Total hours	15	16	16

Senior Year

Religion	2	2	2
Musicology 184, 185	3	3	
Music Applied 182-, 183-, 184-p	2	2	2
Music Applied, Ensembles	1	1	1
General Education Requirements		3	5
Electives (this must include the special music classes)	8	5	6
Total hours	16	16	16

DEGREE IN MUSIC THEORY

To receive a Bachelor of Arts degree with a major in Music Theory, a student must complete the following courses or their equivalent:

	hours
L.D.S. Church Organization and Administration 157, 161, 162	6
Musicology 101	2
Musicology 184, 185	6
Music Theory 21, 22, 23, 121, 122	25
Music Theory 181, 182	4
Music Theory (graduate courses)	15
Music Applied, private instruction (specialty)	6
Music Applied, Ensembles	9

Majors in Music Theory are required to complete one year of private instruction at Brigham Young University. This study should begin in the freshman year. At the end of the year of private instruction the student must take an examination on his specialty to determine the level of his achievement and whether or not his progress has been satisfactory. If additional private study is needed in order to bring the student to the required proficiency, he will be informed at the annual examination. Time and place will be announced. At the time of the examination each candidate will submit to the jury a list of his repertoire in triplicate, indicating the compositions or studies he has prepared especially to perform at the examination. He will also demonstrate his ability to perform scales and arpeggios.

Majors in Music Theory must participate in a musical ensemble for a minimum of nine quarters of their undergraduate training. In order to insure the maximum amount of training, it is the policy to have the student perform in at least two ensembles. A student whose specialty is a band or orchestral instrument takes six hours of instrumental ensembles and three hours of choral ensemble. Since there is more diversity in the choral type ensembles, it is required that a student, whose specialty is voice, sing in at least two choral ensembles to obtain the nine credit hours.

Every major in music, regardless of his special area, must pass the piano proficiency examination appropriate to his specialty during the first quarter of residence or take either piano or private instruction in piano until he passes the examination. Time and place for the examinations will be announced.

The following is recommended as the best sequence of courses for majors in Music Theory.

FRESHMAN YEAR

	A	W	S
Religion	2	2	2
English	3	3	3
Physical Education	1	1	1
Music Theory 21, 22, 23	5	5	5
Music Applied 79-, 80-, 81-p.	2	2	2
Music Applied, Ensembles	1	1	1
Health 1		1	
Electives (Music General 61, 62, 63, if needed)	2	2	2
or	3	3	3
Total hours	16	17	16
or	17	18	17

SOPHOMORE YEAR

	A	W	S
Religion	2	2	2
Language (first year)	5	5	5
Music Theory 121, 122	5	5	
Music Applied, Ensembles	1	1	1
General Education Requirements	3	3	8
Total hours	16	16	16

JUNIOR YEAR

	A	W	S
Religion (L.D.S. Church Organization and Administration 157, 161, 162)	2	2	2
Language (second year)	5	5	
Musicology 101		2	
Music Theory 181, 182	2	2	
Music Applied, Ensembles	1	1	1
General Education Requirements	5	3	13
Total hours	15	15	16

SENIOR YEAR

	A	W	S
Religion	2	2	2
Musicology 184, 185	3	3	
Music Theory (graduate courses)	3	3	3
Music Theory (graduate courses)	3	3	
Electives	5	5	11
Total hours	16	16	16

DEGREE IN MUSIC FOR SECONDARY TEACHERS

Prospective secondary teachers may elect either a composite major in music or a teaching major in music with a teaching minor outside the field of music.

Both types of majors in music are available with either an instrumental or vocal emphasis. The four options are as follows:

Option 1. Composite Major (Instrumental Music Dominant Area)
Option 2. Composite Major (Vocal Music Dominant Area)
Option 3. Teaching Major (Instrumental Music)
Option 4. Teaching Major (Vocal Music)

To receive either a Bachelor of Arts or a Bachelor of Science degree with a major in Music for Secondary Teachers, a student must complete the following courses or their equivalent:

Option 1

(Composite Major: Instrumental Music-Dominant Area)

	Hours
L.D.S. Church Organization and Administration 157, 161, 162	6
Music Education 4, 105, 106	3
*Music Education 110, 111, 112	6
Music Education 115, 116, 117	6
Music Education 118, 125, 126	9
Musicology 184, 185	6
Music Theory 21, 22, 23, 121, 122	25
Music Applied, Private instruction (instrumental specialty)	6
**Music Applied, Ensemble (Instrumental)	6
Music Applied, Ensemble (choral)	3

*The student takes only the two primary workshops not represented by his instrumental specialty.

**Band instrumentalists are expected to participate at least one autumn quarter in Marching Band and one winter quarter in Varsity Band (preferably on a minor instrument).

Option 2

(Composite Major: Vocal Music-Dominant Area)

L.D.S. Church Organization and Administration 157 ,161, 162	6
Music Education 110, 111, 112	9
Music Education 115, 116, 117	6
Music Education 118, 125 ,126	9
Musicology 184, 185	6
Music Theory 21, 22, 23, 121, 122	25
Music Applied, Private Instruction (voice)	6
Music Applied, Ensemble (choral)	6
Music Applied, Ensemble (instrumental)	3

Option 3

(Teaching Major: Instrumental Music-Dominant Area)

L.D.S. Church Organization and Administration 157, 161, 162	6
*Music Education 110, 111, 112	6

Music Education 115 ,116, 117	6
Music Education 125	3
Musicology 184	3
Music Theory 21, 22, 23	15
Music Applied, Private instruction (instrumental specialty)	6
**Music Applied, Ensemble (instrumental)	6

*The student takes only the two primary workshops not represented by his instrumental specialty.

**Band instrumentalists are expected to participate at least one autumn quarter in Marching Band and one winter quarter in Varsity Band (preferably on a minor instrument).

Option 4

(Teaching Major: Vocal Music-Dominant Area)

L.D.S. Church Organization and Administration 157, 161, 162	6
Music Education 126, 128	6
Musicology 184, 185	6
Music Theory 21, 22, 23	15
Music Applied, Private instruction (voice)	12
Music Applied, Ensemble (choral)	6

As outlined in the four options, majors in Music for Secondary Teachers are required to complete a certain number of quarers of private instruction at Brigham Young University. This study should begin in the freshman year. At the end of the year of private instruction the student must take an examination on his specialty to determine the level of achievement and whether or not his progress has been satisfactory. If additional private study is needed to bring the student to the required proficiency, he will be informed at the annual examination. Time and place will be announced. At the time of examination, each candidate will submit to the jury a list of his repertoire in triplicate, indicating the compositions or studies he has prepared especailly to perform at the examination. He will also demonstrate his ability to perform scales and arpeggios.

Every major in music, regardless of his special area, must pass a piano proficiency examination appropriate to his specialty during the first quarter of residence or take either class piano or private instruction in piano until he passes the examination. Time and place for the examnations will be announced.

A major in Music and Secondary Teachers must accumulate at least twenty minutes of recital appearance time either as a soloists or chamber music performer.

For those students who desire to receive a General Secondary Teacher's Certificate, the following courses are required in addition to those listed under the various options: (the proper sequence is indicated)

	Hours
Education Instruction 170	3
Education Research and Services 103	3
Education Research and Services 100	4
Music Education 120	4
Music Education 138	4
Music Education 139	6
Educational Administration 100	3
Educational Values and Programs 100	3
Education Instruction 185	3

The following is recommended as the best sequence of courses for those students who elect the Bachelor of Arts degree with a major in Music for Secondary Teachers under Option 1 (with General Secondary Teacher's Certificate). Recommended four year course outlines for Options 2, 3, and 4 are available at the Music Department office.

FRESHMAN YEAR

	A	W	S
Religion	2	2	2
English	3	3	3
Physical Education	1	1	1
Music Theory 21, 22, 23	5	5	5
Music Applied 79-, 80-, 81-p.	2	2	2
Music Applied, Ensembles	1	1	1
Health 1	1		
General Education Requirements		3	3
Total hours	15	17	17

SOPHOMORE YEAR

	A	W	S
Religion	2	2	2
Language (First Year)	5	5	5
Music Theory 121, 122	5	5	
Music Applied, Ensemble	1	1	1
Music Education 4, 105, 106	1	1	1
Music Education 110, 11, 112 (register as required)	3		3
General Education Requirements		3	5
Total hours	17	17	17

JUNIOR YEAR

	A	W	S
Religion (L.D.S. Church Organization and Administration 157, 161, 162	2	2	2
Language (Second Year)	5	5	
Music Education 115, 116, 117	2	2	2
Music Education 125, 126, 120	3	3	4
Music Applied, Ensembles	1	1	1
Education Research and Services 103, 100	3	4	
Education Instruction 170			3
General Education Requirements			5
Total hours	16	17	17

SENIOR YEAR

Religion	2	2	2
Music Education 118	3		
Music Education 138, 139	4	6	
Musicology 184, 185	3	3	
Educational Administration 100			3
Educational Values and Programs 100			3
Education Instruction 185			3
General Education Requirements	5	5	6
Total hours	17	16	17

The following is recommended as the best sequence of courses for those students who elect the Bachelor of Science degree with a major in Music for Secondary Teachers under Option 1 (with General Secondary Teacher's Certificate). Recommended four year course outlines for Options 2, 3, and 4 are available at the Music Department office.

FRESHMAN YEAR

Religion	2	2	2
English	3	3	3
Physical Education	1	1	1
Music Theory 21, 22, 23	5	5	5
Music Applied 79-, 80-, 81-p.	2	2	2
Music Applied, Ensembles	1	1	1
Health 1		1	
Electives (Music General 61, 62, 63, if needed)	2	2	2
or	3	3	3
Total hours	16	17	16
or	17	18	17

SOPHOMORE YEAR

	A	W	S
Religion	2	2	2
Music Theory 121, 122	5	5	
Music Applied, Ensemble	1	1	1
Music Education 110, 111, or 112 (register as required)	3		3
Music Education 110. 111, or 112 (register as required)	3		3
General Education Requirements	3	6	8
Total hours	15	15	15

JUNIOR YEAR

Religion (L.D.S. Church Organization and Administration 157, 161, 162)	2	2	2
Music Education 115, 116, 117	2	2	2
Music Education 125, 126, 120	3	3	4
Music Applied, Ensembles	1	1	1
Education Research and Services 103, 100	3	4	
Education Instruction 170			3
General Education Requirements	5	5	3
Total hours	16	17	15

SENIOR YEAR

Religion	2	2	2
Music Education 118	3		
Music Education 138, 139	4	6	
Musicology 184, 185	3	3	
Educational Administration 100			3
Educational Values and Programs 100			3
Education Instruction 185			3
General Education Requirements	3	3	5
Total hours	15	14	16

MUSIC GENERAL

Lower Division Courses

1. **A Survey Course in Music.** (3) A.W.S. (GER-HA) Earl, Cannon
A non-technical course without prerequisite designed to increase the appreciation and enjoyment of the masterpieces of music literature of all periods through a study of styles forms, and composers, through attending and discussing lyceum presentations, and through listening to recordings.

2. **Fundamentals of Music.** (3) A.W.S. Halliday, F. D. Madsen
An introductory course in music fundamentals, especially designed for those who have not had sufficient practical experience in music to meet the prerequisites of other music courses, and for public school teachers.

11. **Class Piano for Beginners in Music.** (2) A.W.S. Two periods per week. Minimum of one hour daily practice required outside of class. Keeler
Instruction in the notation of music and in keyboard technique, especially designed for prospective elementary teachers.

12. **Class Piano for Beginners in Music.** (2) W.S. Prerequisite: Music General 11. Two periods per week. Minimum of one hour daily practice required outside of class. Staff
Continuation of Music General 11.

61, 62, 63. **Group Piano Instruction.** (2-2-2) A.W.S. Not open to piano majors. Prerequisite: Ability to read music. Staff
Class instruction designed for those music majors and minors who cannot pass the piano proficiency examination.

Upper Division Courses

157. **Sacred Music.** (2) A.W.S. (GER-HA; GER-R) (See L.D.S. Church Organization and Administration 157.)
Hymnology and elementary baton technique.

161. **Sacred Music.** (2) W. (GER-HA; GER-R) (See L.D.S. Church Organization and Administration 161.) Gulbrandsen, Weight
Choir directing and intermediate baton technique.

MUSIC EDUCATION

Lower Division Courses

4. **Vocal Workshop.** (1) A.W.S. Two periods per week. R. Woodward

Class instruction for beginners in vocal production.

Upper Division Courses

105, 106. **Vocal Workshop.** (1-1) W.S. Prerequisite: Equivalent of Music Education 4. Two periods per week. R. Woodward

Course especially designed for prospective secondary music teachers.

107. **Music for Elementary Teachers.** (3) A.W.S. Prerequisite: Music General 2 or the equivalent. (See Education Instruction 107.) F. D. Madsen

Materials and procedures for stimulating and guiding child development in the various phases of music in the elementary school. Attention will be given to the relationship of music to the rest of the school program.

110. **Primary Woodwind Workshop.** (3) A. Five periods per week. R. Laycock

Course designed to help prospective teachers learn to play and to teach clarinet and saxophone.

111. **Primary Brass Workshop.** (3) W. Five periods per week. Ballou

Course designed to help prospective teachers learn to play and to teach trumpet, baritone horn, and french horn.

112. **Primary String Workshop.** (3) S. Five periods per week. H. Laycock

Course designed to help prospective teachers learn to play and to teach violin.

115. **Secondary Woodwind Workshop.** (2) A. Four periods per week. Prerequisite: Music Education 110 or the equivalent. Edlefsen

Course designed to help prospective teachers learn to play and to teach flute, oboe, and bassoon.

116. **Secondary Brass and Percussion Workshop.** (2) W. Four periods per week. Prerequisite: Music Education 111 or the equivalent. R. Laycock

Course designed to help prospective teachers learn to play and to teach trombone, tuba, and rudiments of percussion playing.

117. **Secondary String Workshop.** (2) S. Four periods per week. Prerequisite: Music Education 112 or the equivalent. Sardoni

Course designed to help prospective teachers learn to play and to teach viola, 'cello, and string bass.

118. **Conducting and Rehearsal Techniques.** (3) A. Five periods per week. Prerequisites: L.D.S. Church Organization and Administration 157, 161. **Staff**

120. **Basic Classroom Procedures in Secondary Instruction.** (4) S. Prerequisite: Education Research and Services 100, 103.
F. D. Madsen

A basic course concerned with materials, procedures, and techniques which give experience in providing effective learning activities for secondary school students.

125. **Instrumental Music in the Secondary Schools.** (3) A.
F. D. Madsen

Organization and administration of the instrumental program in secondary schools. Band, orchestra, ensemble, and solo literature for junior and senior high schools.

126. **Vocal Music in the Secondary Schools.** (3) W. Weight
Organization and administration of the vocal program in secondary schools. Problems of the changing voice. Choral, vocal solo, and ensemble literature for junior and senior high schools.

127. **Piano Pedagogy.** (3) W. Staff
Methods, materials, and problems in teaching piano.

128. **Vocal Pedagogy.** (3) W. Halliday, R. Woodward
Methods, materials, and problems in teaching voice.

138. **Secondary Curriculum and Participation.** (4) A. Prerequisite: Music Education 120. F. D. Madsen

The development of techniques for providing continuous, well-organized learning experiences for secondary school pupils. Emphasis will be placed on materials and procedures applicable in the teaching of subjects within the student's area of specialization. Fees: A special fee of $20.00 (prorated over the two quarters in which the student is registered for Music Education 138 and 139 at $10.00 per quarter) is charged to equalize the cost of travel for all student teachers regardless of location of cooperating public schools.

139. **Secondary Student Teaching.** (6) W.S. Prerequisites: Music Education 138 and completion of two-thirds of courses required for teaching major and minor or composite major.
F. D. Madsen

Supervised teaching in public secondary school for a full quarter on a half-day basis. Close contact with faculty and students, participation in co-curricular activities and much responsible teaching are expected. Student teachers will participate in weekly seminars and periodic conferences with supervisors. The nature of this course dictates that students must limit their total load to 15 quarter hours. Fees: A special fee of $20.00 (prorated over the two quarters in which the student is registered for Music Education 138 and 139 at $10.00 per quarter) is charged to equalize the cost of travel for all student teachers regardless of location of cooperating public schools.

Graduate Coursese

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201. **Music in the Elementary School.** (3) A. Staff

202. **Methods for Elementary School Music Consultants.** (3) W. Staff

211. **Music in the Junior High School.** (3) S. Staff

221. **Music in the Senior High School.** (3) A. Staff

222. **Supervision of Secondary School Music.** (3) W. F.D. Madsen

241. **Music Arranging for School Groups.** (3) A. R. Laycock

271. **Advanced Conducting.** (3) S. Sardoni

281. **Summer Music Clinic.** (3) Summer. (May be counted as Music Applied). Sardoni, et al.

294. **Seminar in Music Education.** (2) W. Staff

300. **Thesis for Master's Degree.** (4)
Candidates for a master's degree are required to show competence in writing and research before work is started on the thesis.

301. **Field Project.** (4)
A satisfactory field project may be substituted for a thesis provided that a total of forty-five hours credit be presented in addition to the field project.

MUSICOLOGY

Upper Division Courses

101. **Aesthetics.** (2) W. (GER-HA) (See Art. 101) deJong
Theoretical and practical criteria of aesthetic values.

162. **History of Sacred Music.** (2) S. (GER-HA, GER-R) (See LDS Church Organization and Administration 162.) Cannon Wakefield

184, 185. **History of Secular Music.** (3-3) A.W. (GER-HA) Prerequisite Music Theory 23. Cannon, Wakefield

Graduate Courses

For regulations governing study beyond the bachelor's degree see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

It is recommended that Musicology majors take Music Theory 211 (Counterpoint) and Music Theory 222, 223 (Form and Analysis).

201. Introduction to Research Techniques. (2) A. Earl

211. History and Literature of Music Through the Renaissance. (5) A. Cannon

212. History and Literature of Music in the Baroque and Classical Periods. (5) S. Cannon, Keeler, Wakefield

213. History and Literature of Music in the Romantic and Modern Periods.. (5) S. Wakefield

Musicology 211, 212, and 213 constitute a core-course in Musicology and are required of any graduate student who intends to receive the master's degree with a major or minor in Musicology.

221. The Symphony. (2) A. Wakefield

222. Chamber Music. (2) W. Wakefield

223. The Opera. (2) S. Earl

224. Choral Music. (2) W. Cannon

294, 295. Seminar in Musicology. (2-2) W.S. Prerequisite: Musicology 201. Cannon

297. Special Readings in Musicology. (2) A.W.S. Wakefield

300. Thesis for Master's Degree. (4)

Candidates for a master's degree are required to show competence in writing and research before work is started on the thesis.

MUSIC THEORY

Lower Division Courses

21, 22, 23. First Year Harmony, Solfeggio and Keyboard Work. (5-5-5) A.W.S. (Students who have a deficiency in piano keyboard technique will be expected to register for Music General 61 or Music Applied 79-p (piano), which is to be taken simultaneously with Music Theory 21.) Five periods per week. One hour of laboratory each day in the autumn and winter quarters, and three days a week in the spring quarter. Brownlee, Cannon, Edlefsen, H. Laycock, Sardoni, Wakefield, Weight

Tonal harmony, correlating part writing, melodic and harmonic dictation, keyboard work, sight singing, modulation, analysis, and simple forms.

Upper Division Courses

121, 122. Second Year Harmony, Solfeggio and Keyboard Work. (5-5) A.W. Prerequisite: Music Theory 23 or its equivalent. Five periods per week and two laboratory periods per week. Cannon, Gates, H. Laycock, Nordgren, Sardoni

A continuation of Music Theory 23, involving longer and more complex melodies in harmonization and dictation, modulations, altered chords, form and analysis.

181, 182. Advanced Harmony at the Keyboard. (2-2) A.W. Prerequisite: Music Theory 23 and moderately advanced keyboard technique. Two periods per week and two laboratory periods per week. Keeler

Harmonization of figured and unfigured basses and other voices, cadences, sequences, transpositions, modulations, and improvisations at the keyboard.

Graduate Courses

For regulations governing study beyond the bachelor's degree see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

211, 212, 213. Counterpoint. (3-3-3) A.W.S. Prerequisite: Music Theory 122. Gates

221. Materials of Modern Music. (3) A. Prerequisite: Music Theory 122. Gates

222, 223. Form and Analysis. (3-3) W.S. Prerequisite: Music Theory 122. (May be counted as Musicology.) Gates

231, 232, 233. Instrumentation and Orchestration. (3-3-3) A.W.S. Prerequisite: Music Theory 122. Gates, Sardoni

241. History of Music Theory. (3) W. Prerequisite: Music Theory 122. Nordgren

251. Pedagogy of Music Theory. (3) S. Prerequisite: Music Theory 122. (May be counted as Music Education.) Nordgren

271, 272, 273, 274, 275, 276. Composition. (3-3-3-3-3-3) A.W.S. Prerequisite: Music Theory 122. Fuerstner, Gates

300. Thesis for Master's Degree. (4)

Candidates for the master's degree are required to show competence in writing and research before work is started on the thesis.

311. Composition for Master's Degree. (4)

Candidates for the master's degree are required to show competence in ability to compose before work is started on the composition.

MUSIC APPLIED

1, 2, 3, 4, 5, 6. University Chorale. (1-1-1-1-1-1) A.W.S. (GER-HA) Three periods per week and participation in the Choral Union. R. Woodward

7, 8, 9, 10, 11, 12. **Male Chorus.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Gulbrandsen

13, 14, 15, 16, 17, 18. **Women's Chorus.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Gulbrandsen

19, 20, 21, 22, 23, 24. **Madrigal Singers.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Halliday

25, 26, 27, 28, 29, 30. **A Cappella Choir.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week and participation in the Chora Union. Admission by consent of director. Weight

Choral Union. A.W.S. One two-hour period per week. R. Woodward

A chorus composed of all singers belonging to the University Chorale, Male Chorus, Women's Chorus, Madrigal Singers, A Cappella Choir, Open to any student or faculty member of the university by consent of the director. The function of this chorus is to prepare and perform oratorios, sing at certain devotional assemblies, general conference, baccalaureate and commencement exercises.

31, 32, 33, 34, 35, 36. **Opera Workshop.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. Earl, Curtis, et al.

43, 44, 45, 46, 47, 48. **Varsity and Marching Band.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. Ballou

49, 50, 51, 52, 53, 54. **Concert Band.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. R. Laycock

55, 56, 57, 58, 59, 60. **Chamber Orchestra.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. H. Laycock

67, 68, 69, 70, 71, 72. **Symphony Orchestra.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. Sardoni

73, 74, 75, 76, 77, 78. **Brass, Piano, String, Vocal, Woodwind Ensemble.** (1-1-1-1-1-1) A.W.S. Three periods per week.
Ballou, Cannon, Earl, Edlefsen, Fuerstner, Gulbrandsen, Halliday, H. Laycock, Nordgren, Sardoni, Wakefield, Weight, R. Woodward

79-, 80-, 81-, 82-, 83-, 84-p. **Private Instruction.** (2-2-2-2-2-2) A.W.S. (GER-HA) Ten lessons per quarter. Special fee.

Brass, Trumpet, Cornet, French Horn, Trombone Baritone, Tuba. Ballou, Evans, R. Laycock, F. D. Madsen

Harpsichord: Wakefield

Organ: Keeler

Percussion: Drums and Tympani R. Laycock

Piano: Brownlee, Cannon, Fitzroy, Fuerstner, Gates, Hanson, Keeler, Nelson, Wakefield

Recorder: Cannon, Wakefield

Strings: Violin, Viola, 'Cello, String Bass Buggert, H. Laycock, Nordgren, Sardoni

Voice: Curtis, Earl, Gulbrandsen, Halliday, Jepperson-Madsen, Franklin Madsen, McAllister, Summerhays, Weight, R. Woodward

Woodwinds: Fute, Oboe, Clarinet, Bassoon, Saxophone. Bos, Edlefsen, R. Laycock

85, 86, 87. **Piano Accompanying.** (1-1-1) A.W.S. Three clock hours per week. Fuerstner

Upper Division Courses

101, 102, 103, 104, 105, 106. University Chorale. (1-1-1-1-1-1) A.W.S. (GER-HA) Three periods per week and participation in the Choral Union. R. Woodward

107, 108, 109, 110, 111, 112. **Male Chorus.** (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Gulbrandsen

113, 114, 115, 116, 117, 118. Women's Chorus. (1-1-1-1-1-1) A.W. S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Gulbrandsen

119, 120, 121, 122, 123, 124. Madrigal Singers. (1-1-1-1-1-1) A.W. S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Halliday

125, 126, 127, 128, 129, 130. A Cappella Choir. (1-1-1-1-1-1) A.W. S. (GER-HA) Five periods per week and participation in the Choral Union. Admission by consent of director. Weight

Choral Union. A.W.S. One two-hour period per week. R. Woodward

A chorus composed of all singers belonging to the University Chorale, Male Chorus, Women's Chorus, Madrigal Singers, A Cappella Choir. Open to any student or faculty member of the university by consent of the director. The function of this chorus is to prepare and perform oratorios, sing at certain devotional assemblies, general conference, baccalaureate and commencement exercises.

131, 132, 133, 134, 135, 136. Opera Workshop. (1-1-1-1-1-1) A.W. S. (GER-HA) Five periods per week. Admission by consent of director. Earl, Curtis, et al.

143, 144, 145, 146, 147, 148. Varsity and Marching Band. (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. Ballou

149, 150, 151, 152, 153, 154. Concert Band. (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. R. Laycock

155, 156, 157, 158, 159, 160. Chamber Orchestra. (1-1-1-1-1-1) A.W.S. GER-HA) Five periods per week. Admission by consent of director. H. Laycock

167, 168, 169, 170, 171, 172. Symphony Orchestra. (1-1-1-1-1-1) A.W.S. (GER-HA) Five periods per week. Admission by consent of director. Sardoni

173, 174, 175, 176, 177, 178. Brass, Piano, String, Vocal, Woodwind Ensemble. (1-1-1-1-1-1) A.W.S. Three periods per week. Ballou, Cannon, Earl, Edlefsen, Fuerstner, Gulbrandsen, Halliday, H. Laycock, Nordgren, Sardoni, Wakefield, Weight, R. Woodward

179-, 180-, 181-, 182-, 183-, 184-p. Private Instruction. (2-2-2-2-2-2) A.W.S. (GER-HA) Ten lessons per quarter. Special fee.

185, 186, 187. Piano Accompanying. (1-1-1) A.W.S. Three clock hours per week. Fuerstner

188, 189. Vocal Repertoire. (1-1) W.S. Two periods per week. R. Woodward

191, 192. Piano Repertoire. (1-1) W.S. Two periods per week. Fuerstner

194. The Art of Piano Accompaniment. (1) A. Two periods per week. Fuerstner

195, 196. Organ Problems. (3-3) A.W. Admission by consent of instructor. Prerequisite: Advanced standing as an organ student. Keeler

Registration for solo and accompaniment. Problems incident to accompaniment playing; other related problems.

Graduate Courses

For regulations governing study beyond the bachelor's degree see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

279-, 280-, 281-, 282-, 283-, 284-p. Private Instruction. (2-2-2-2-2-2) A.W.S. Ten lessons per quarter. Special fee.

Brass: Trumpet, Cornet, Franch Horn, Trombone, Baritone, Tuba.	Ballou, R. Laycock, F. D. Madsen
Harpischord	Wakefield
Organ:	Keeler
Percussion: Drums and Tympani	R. Laycock
Piano:	Cannon, Fuerstner, Gates, Keeler, Wakefield
Recorder:	Cannon, Wakefield

Strings: Violin, Viola, 'Cello, String Bass	H. Laycock, Nordgren, Sardoni
Voice:	Curtis, Earl, Gulbrandsen, Halliday, Weight, R. Woodward
Woodwinds: Flute, Oboe, Clarinet, Saxophone, Bassoon	Edlefsen, R. Laycock

285. **Solo Recital.** (3) A.W.S. Required of all students minoring in Music Applied. Staff

Nursing

Associate Professors: Chapman (director, SFC), Jenny.
Assistant Professors: Cochran Jahraus, Nagele, Bloom.
Instructors: Allred, R. H. Andersen, Harris, Kohler, Potter, Tweedie, Wilson.

I. For Non-Nursing Majors:

Lower Division Course

7. **Family Health and Home Nursing.** (2) A.W.S. Jenny, Staff

Essential knowledge and attitudes about healthful family living. Skills in giving simple home nursing care to the sick or injured. Essentials of maternal health and child care. (See HDFR 80.)

II. For Majors in Nursing:

Lower Division Courses

5. **Fundamentals of Nursing.** (3) (Not given this year.)

6. **Fundamentals Laboratory.** (2) (Not given this year.)

9. **Fundamentals.** (2) A. Prerequisite: Nursing 5. Harris, Staff

Continuation of the theory of basic nursing skills and techniques involved in comprehensive nursing care.

10. **Fundamentals Laboratory.** (4) A. Laboratory twelve hours per week, including eight hours at Utah Valley Hospital. Concurrent registration in Nursing 9 required. Harris, Staff

Continuation of clinical course in the more complex fundamental nursing skills and techniques.

15. **Pharmacy and Pharmacology.** (2) A. Credit or concurrent registration in Nursing 10 required. Staff

Drugs, actions, dosages, administration, and mathematics.

19. **Maternal and Child Care.** (5) W.S. Prerequisite: Nursing 9. Kohler, Staff

Social and health aspects of, and nursing responsibility in pregnancy, labor, delivery, and the puerperium, including care of the premature and the full-term infant.

20. **Maternal and Child Care Laboratory.** (6) W.S. Concurrent registration in Nursing 19 required. Kohler, Staff

Experience in the care and management of the obstretric patient in the physician's office, out-patient clinic, and hospital maternity divisions, including the labor and delivery suite, post partum floors, new born and premature nurseries.

23. **Nursing Care of Children.** (5) W.S. Prerequisites: Nursing 9 and 15. Potter, Wilson

Study of the child from infancy through early adolescence as related to growth and development, and changes in behavior patterns which are indicative of illness. Study of children's diseases, related child care, and nursing skills required in special therapies. Nursery and Public School observation of normal child behavior at work and play.

24. **Nursing Care of Children Laboratory.** (6) W.S. Concurrent registration in Nursing 23 required. Potter, Wilson

Experience in the care of the ill child in convalescent and general hospitals, including physical, occupational, and play therapy.

25. **Trends in Nursing.** (2) A. Cochran

A study of the relationships, the origin, and development of nursing to present patterns of nursing.

Upper Division Courses

101. **Introduction to Medical-Surgical Nursing.** (5) Summer. Prerequisites: Nursing 17, 19, and 23. Nagele, Staff

An approach to the study of Medical-Surgical Nursing from the standpoint of symptoms of simple Medical-Surgical conditions which cause the individual to seek medical-surgical care. Includes beginning study of disease conditions; related diet therapy and pharmacology is integrated.

102. **Introduction to Medical-Surgical Nursing Laboratory.** (5) Summer. (Concurrent with Nursing 101.) Nagele, Staff

Opportunity will be provided to give nursing care to patients with the above symptoms and disease conditions with emphasis on the responses of the patient, his family, and the nurse. Includes the learning of basic nursing skills and understandings essential to meeting physical, emotional, and social needs of the patient.

103. **Practical Aspects of Medical-Surgical Nursing.** (4) Summer. Nagele, Staff

An introduction to the scope of health problems, social aspects of illness, accident prevention, and basic knowledges of medical science.

111. **Intermediate Medical-Surgical Nursing.** (7) A. Prerequisites: Nursing 101 and 103. Nagele, Staff

Continuation of medical-surgical nursing, organized around problems of patients with impairment or loss of essential body functions: digestive, excretory, reproductive, respiratory, and circulatory.

112. **Intermediate Medical-Surgical Nursing Laboratory.** (5) A. Nagele, Staff

A laboratory course in nursing care related to and correlated with Intermediate Medical-Surgical Nursing 111.

117. Public Health Sciences. (4) A.W.S. Concurrent registration in Nursing 136 required. Jenny, Staff

The public health movement; the inter-relationship of treatment and prevention of disease; trends in communicable disease and environmental control; programs in maternal-child health; chronic diseases; the use of vital statistics; the organization and function of local, state, and national health departments.

120. Operating Room Nursing. (4) A.W. Two hours class and eighteen hours laboratory for five weeks. Prerequisites: Nursing 101 and 102. Nagele, Staff

Lecture-laboratory course in operating room technique. Emphasis on importance of teamwork in effective functioning of the operating room, understanding and application of principles of asepsis, and comprehensive nursing care of the surgical patient.

121. Advanced Medical-Surgical Nursing. (4) A.W. Prerequisite: Nursing 111. Nagele, Staff

Continuation of Nursing 111, with emphasis on advanced understanding and skills in meeting complex nursing problems.

122. Advanced Medical-Surgical Nursing Laboratory. (4) A.W. Nagele, Staff

A continuation of Medical-Surgical Nursing Laboratory 112.

123. Advanced Maternal and Child Care. (2) W.S. Prerequisites: Nursing 120 and 121. Potter, Kohler

Nursing care of complications which may occur during any period in the maternity cycle are studied. This includes care of the premature infant. Acute and terminal diseases of childhood are studied.

124. Advanced Maternal and Child Care. (3) W.S. Potter, Kohler

Experience to be correlated with Nursing 123.

125. Principles of Public Health Nursing. (3) A.W.S. Concurrent registration in Nursing 136 required. Jenny, Allred

The meaning and functions of public health nursing, the application of principles of comprehensive nursing in the home or community setting.

127. Comprehensive Nursing of the Aging Population. (3) W.S. Jahraus, Staff

Study of the normal behavior of the older age group. Relationship of physical, emotional, and social needs and how they can be met; specific application to the ill person. Laboratory experience integrated with concurrent clinical experience.

136. Community Nursing Laboratory. (8) A.W.S. Concurrent registration in Nursing 117 and 125 required. Jenny, Allred

Field work in a public health nursing agency. Experience in giving comprehensive nursing care to families in their homes, in working with allied professional workers and community agencies.

141. Psychiatric Nursing and Mental Health. (5) W.S. Jahraus, Bloom

Principles of nursing care for the mentally ill. Discussion of basic concepts in prevention, diagnosis, and treatment of mental illness, and implications for nursing. Development of appreciation of the functions of all members of the psychiatric team. Juniors and seniors only.

142. Psychiatric and Mental Health Nursing Laboratory. (6) W.S. Jahraus, Bloom

Clinical laboratory experience with mentally ill patients, including care of the acutely ill and convalescent patients, and observation of selected patients receiving intensive analytic and somatic therapy. Juniors and Seniors only.

143. Management. (2) W.S. Staff

A Seminar in principles of Administration and their application in the Nursing situation. The activities of the nurse as a leader of the nursing team, and the responsibilities of the head nurse are studied. Observation and experience in the use of these principles are included.

145. Communicable Diseases. (3) W.S. Staff

A study of Communicable Diseases, including Poliomyelitis, Tuberculosis, and Venereal Diseases. Nursing Care in acute cases and epidemics, and Rehabilitation. Includes Laboratory practice of Medical Aseptic Techniques, and Observation and and Care of Tuberculosis Patients.

149. Senior Seminar in Advanced Clinical Nursing. (3) W.S. Nagele, Staff

Independent student work and group participation will center around selected cases which offer an opportunity for highly skilled nursing techniques and the integration of all aspects of total nursing.

150. Advanced Nursing Laboratory. (5) W.S. Nagele, Staff

Medical and Surgical aspects of Neurological and Cardiac conditions will be considered. Long-term illness such as Blood Dyscrasias; Skin and Allergic condition; and Emergency situations. Experience in conditions studied in Nursing 149.

151. Senior Seminar. (2) W.S. Chapman

A seminar on the opportunities and responsibilities inherent in the Profession of Nursing, with emphasis on Nursing Organizations, Legislative controls, and the Fields of Nursing. Problems confronting the graduate professional nurse will be explored.

Nutrition

(See courses in Food and Nutrition)

Personnel and Guidance

(See Educational Research and Services.)

Philosophy

(See Division of Religion)

Photography

(See Physics 26, 27; Art 147, 148; Education 177; Journalism 121, 122, 123, 124.)

Physical Education

Professors: C. J. Hart (chairman, men, 222 F.H.), Holbrook (chairman, women, Women's Gym), Kimball, Nash.

Assistant Professors: Robison, F. W. Dixon, Kopp, Soffe, Watts.

Instructors: Bangerter, Barney, Bunker, Calderwood, Cowan, Crowton, O. Dixon, Geddes*, Glover, W. J. Hafen, Heaton, M. B. Jensen, R. Kimball, I. L. Peterson, Stevens, Tolbert, Warren, Witbeck.

Each freshman student is required to take one lower division physical education course during each quarter of the freshman year; in addition, he is required to take Health 1 sometime during his freshman year. A variety of activities is available for choice. A year's work in physical education activity will provide the student with an opportunity for organic development, neuromuscular skill, social contact in game and team situations, and other carry-over values.

Extra-curricular activities are promoted for student participation: games, sports, hikes, dancing, and intramural athletics. The department urges all students to participate regularly in some form of physical activity.

The Brigham Young University is a member of the Skyline Eight Conference. The school participates in a full schedule of intercollegiate athletic competition, as sponsored by the conference.

Students using the towel service are required to make a 75 cent deposit by purchasing a towel check. The towel check is exchangeable for towel service during school hours. Towel checks are redeemable at any time.

A thorough physical examination is required of each freshman student upon entering the institution. All students desiring exemption from physical education due to medical reasons must obtain such excuse from the university physician. Written statements from the local doctor must be approved by the university physician.

Students registered for physical education activity courses are required to provide themselves with the official uniform which may be purchased at the university book store. They are also required to provide themselves with an approved combination padlock for use on basket locker.

PHYSICAL EDUCATION MAJOR

Students majoring in Physical Education will take the following courses: Physical Education 51, 52, 53, 54, 55, 56, 61, 80, 88, 89, 130, 133, 140, 141, 146, 154; Health 5, 21, 45, 195.

They will elect also 5 hours from among the following courses: Physical Education 133, 134, 142, 175, and Recreation 131. In addition to the above, men majors will take Physical Education 101, 102, 103, 143. Women majors will take Physical Education 81a, 81b, 81c, 87, and 120 or 121. In addition all majors will take Zoology 11, Psychology 11, and at least one course in both Chemistry and Physics.

PHYSICAL EDUCATION MINOR

Students desiring to minor in Physical Education should take the following courses: Physical Education 51, 52, 53, 54, 55, 56, 88, 130, 141. In addition to the above, men minoring in Physical Education should take 101, 102, 103, and 104. Women minors should page 81a, 81b, and 81c and an additional three hours to be elected.

Note: see page 434 for composite major in Physical Education, Recreation and Health.

DANCE MAJOR

Students majoring in Dance will take the following courses: Physical Education 80, 81a, 81b, 81c, 83a, 83b, 83c, 87, 88, 89, 121, 180. 181a, 181b, 181c, 183a, 183b, 183c, 184a, 184b, 184c, 185a, 185b, 185c, 186a, 186b, 187, 188, 189, 130, 140, 141, and Recreation 81.

DANCE MINOR

A minor in dance may be had by completing the following courses: Physical Education 81a, 81b, 81c, 83a, 83b, 83c, 87, 88, 89, 121, 183a, 183b, 183c, 184a, 184b, 184c, 187, 188, 189, 185a, 185b, 185c.

Pre-Physical Therapy

The department offers the following 3-year pre-physical therapy curriculum for physical education majors who desire to qualify for entrance into physical therapy professional schools.

Proposed Curriculum

Freshman Year

Autumn

Religion	2
Phys. Ed. 51	2
English 1	3
Foods 5	3
Chemistry 7	5
Air Science (optional)	2
Total Hrs.	17

Winter

Religion	2
Phys. Ed. 52	2
English 2	3
Chemistry 8	5
Bacteriology 21	4
Air Science (optional)	2
Total Hrs.	18

Spring

Religion	2
English 3	3
Sociology 11	5
Zoology 11	5
Health 1	1
Air Science (optional)	2
Total Hrs.	18

Sophomore Year

Autumn

Religion	2
Phys. Ed. 54	2
English (elective)	3
Zoology 48	5
History 70	5
Air Science (optional)	2
Totals Hrs.	19

Winter

Religion	2
Phys Ed. 88	1
Psychology 11	5
Math 1 or 11	5
Air Science (optional)	2
Elective	3
Total Hrs.	18

Spring

Religion	2
Phys Ed. 120	2
Phys Ed. 53.	2
Math 12	5
Zoology 51	4
Air Science (optional)	2
Total Hrs.	17

Junior Year

Autumn

Religion	2
English (elective)	3
Phys. Ed. 141	5
Psychology 139	3
Physics 31	5
Total Hrs.	18

Winter

Religion	2
Phys Ed. 143	3
Phys Ed. 146	3
Physics 32	5
Psychology 121	5
Total Hrs.	18

Spring

Religion	2
English (elective)	3
Phys Ed. 140	3
Phys. Ed. 133	3
Phys Ed. 154	5
Electives	2
Total Hrs.	18

FOUR-YEAR COURSE OF STUDY FOR MAJORS IN PHYSICAL EDUCATION

Following this outline will aid the student to meet all group, departmental, and university requirements for graduation, and will also meet all requirements for state certification.

Freshman Year

Autumn

English 1	3
Religious Education	2
Physical Ed. 51	2
Health 21 (Bacteriology)	4
Phys. Ed. 81a (Women)	1
Air Science (Men)*	2
Minor or Elective	3 to 5

Winter

English 2	3
Religious Education	2
Physical Ed. 52	2
Sociology 11 (or minor)	5
Zoology 11	5
Phys. Ed. 81b (Women)	1
Air Science (Men)*	2

Spring

English 3	3
Religious Education	2
Physical Ed. 53	2
Chemistry 1	3
Health 1	1
History 70	5
Phys. Ed. 81c (Women)	1
Air Science (Men)*	2

Sophomore Year

Autumn

English Literature	2
Religious Education	2
Physical Ed. 54	2
Psychology 11	5
Phys. Ed. 87 (Women)	1
Air Science (Men)*	2
Geology 1	3

Winter

English Literature	2
Religious Education	2
Physical Ed. 55	2
Health 45 (Zoology 45)	5
Physics 1	3
Phys. Ed. 88	1
Physical Education 80	1
Air Science (Men)*	2

Spring

Religious Education	2
Physical Ed. 56	2
Phys. Ed. 89	1
Health 5	3
Phys. Educ. 61	1
Phys. Educ. 64	1
Education R. & S. 103	3
Air Science (Men)*	2

Junior Year

Autumn

English Literature	2
Religious Education	2
Phys. Ed. 101 (Men)	2
Phys. Ed. 141	3
Educational Arm. 100	3
Education R & S 100	4
Minor or Elective (Men)	1-2
Phys. Ed. 120 (Women)	2

Winter

Religious Education	2
Physical Ed. 130	3
Phys. Ed. 146	3
Phys. Ed. 102 (Men)	2
Phys. Ed. 137	4
Minor or Humanities	4-6

Spring

Religious Education	2
Phys. Ed. 140	3
Phys. Ed. 103 (Men)	2
Phys. Ed. 104 (Men)	2
Phys. Ed. 138	4
Social Science	5
Phys. Ed. 121 (Women)	2

Senior Year

Autumn

Religious Education	2
Health 195	2
Health 158	3
Phys. Ed. 139	6
Minor and Elective	2

Winter

Religious Education	2
Phys. Ed. 154	5
Phys. Ed. 143 (Men)	3
Educ. Adm. 100	3
Minor or Electives	2-5

Spring

Phys. Ed. 133	3
Religious Education	2
Ed. V & P 100	3
Educ. Instr. 185	3
Minor and Humanities	4-6

*Majors desiring Military Training will take Air Science courses as indicated.

Lower Division Courses for Men

1, 2, 3. Physical Education Activities. (1-1-1) A.W.S. Staff
These courses will include games, and a variety of athletic and gymnastic activities.

4. Indoor Track and Field. (1) W. Robison

10. Basketball. (1) A.W.S. Three periods each week. F. W. Dixon

11. **Volley Ball.** (1) A.W.S. Three periods each week. Bangerter

12. **Badminton.** (1) A.W.S. Three periods each week. Soffe

13. **Handball.** (1) A.W.S. Three periods each week. Soffe

17. **Boxing.** (1) A.W.S. Three periods each week. Soffe

18. **Wrestling.** (1) A.W.S. Three periods each week. Staff

20. **Freshmen Basketball.** (1) W. Daily. Prerequisite: Physical Education 10 or equivalent. Watts

27. **Intermediate Boxing.** (1) W.S. Three periods each week. Prerequisite: Phys. Ed. 17 or equivalent. Soffe

28. **Intermediate Wrestling.** (1) A.W.S. Three periods each week. Prerequisite: Phys. Ed. 18 or equivalent Nilson

30. **Golf.** (1) A.S. Two two-hour periods each week. Provo Municipal Golf Course. Fee. F. W. Dixon

31. **Tennis.** (1) A.S. Three periods each week. F. W. Dixon

32. **Skiing.** (1) W. Fee. Cowan, Jensen

First year skiing for participants of varying abilities. Sections will be formed and instruction will be given in the fundamentals of climbing, touring, downhill and slalom. (Permission to withdraw with refund restricted.)

36. **Softball.** (1) S. Three periods each week. (Not given this year.) Staff

37. **Football—Freshmen.** (1) A. Daily. Staff

This course will be limited to those qualifying for the freshman football squad.

38. **Track and Field—Freshmen.** (1) S. Daily. Robison

This course is open to those qualifying for the freshman track and field squad.

39. **Baseball—Freshmen.** (1) S. Staff

Limited to those qualifying for freshman baseball squad.

40. **Intermediate Golf.** (1) A.S. Two periods each week. Provo Municipal Golf Course. Special fee. Prerequisite: Phys. Ed. 30 or equivalent. F. W. Dixon

41. **Intermediate Tennis.** (1) A.S. Daily. Prerequisite: Phys. Ed. 31 or equivalent. F. W. Dixon

42. **Second Year Skiing.** (1) W. Cowan, Jensen

Second year skiing for participants of varying ability. Classification for instruction will be based upon ability. Fee. (Permission to withdraw with refund restricted.)

46. **Archery.** (1) A.S. Peterson

Individual techniques with experience in various types of tournaments and related archery activities. Students will furnish their own arrows.

51. **Skills and techniques (for majors).** (2) A.S. Five periods each week. Witbeck, Bangerter
Speedball, touch football, soccer, and tumbling.

52. **Skills and techniques (for majors).** (2) W. Five periods each week. Special fee for Bowling. Witbeck, Bangerter
Boxing, bowling, and wrestling.

53. **Skills and Techniques (for majors).** (2) A.S. Five periods each week. Witbeck, Bangerter
Football, gymnastics, weight training, and body building.

54. **Skills and Techniques (for majors).** (2) A.S. Five periods each week. Special fee for golf. Soffe, F. W. Dixon
Tennis, volley ball, golf.

55. **Skills and Techniques (for majors).** (2) W. Five periods each week. Soffe
Badminton, basketball, handball, squash.

56. **Skills and Techniques (for majors).** (2) A.S. Five periods each week. Soffe
Games and relays, softball, track and field.

60. **Elementary Swimming.** (1) S. Fee. (Permission to withdraw with refund restricted.) Two periods each week. Staff

61. **Intermediate Swimming.** (1) S. Fee (Permission to withdraw with refund restricted.) Two periods each week. Staff

64. **Life Saving.** (1) S. Fee. Cowan
American Red Cross life saving course. (Permission to withdraw with refund restricted.)

65. **Water Safety Instruction.** (1) S. Fee. Cowan
American Red Cross water safety instructors' course. Prerequisite: Physical Education 64 or equivalent. (Permission to withdraw with refund restricted.)

66. **Canoeing.** (1) S. Fee Holbrook, Cowan
Provides instruction in canoeing techniques on the many and varied waterways of Utah County. American Red Cross Basic Canoeing Cards and Canoeing Instructor Cards are issued to those students who qualify. Prerequisite: ability to pass swimming test or the holding of an intermediate or Life Saving Card. Permission to withdraw with refund restricted.

70. **Beginning Tumbling, Trampoline, Stunts, and Balancing.** (1) A.W.S. Three periods each week. Bangerter

72. **Trampoline and Gymnastic Apparatus.** (1) A.W.S. Three periods each week. Bangerter
Basic instruction is given in gymnastic and free exercises; techniques are taught in use of parallel and horizontal bars, flying rings, side horse, and trampoline.

73. **Intermediate Trampoline and Gymnastic Apparatus..** (1) W.S. Prerequisite: Pyhs. Ed. 72 or equivalent. Bangerter

76. **Weight Training and Body Building.** (1) A.W.S. Soffe

80. **Social Dancing.** (1) A.W.S. Heaton

87. **Tap Dance.** (1) A.W.S. Jensen
Fundamental and basic tap rhythms progressing into routines for various tempo music.

88. **Folk Dance.** (1) A.W.S. Holbrook, Jensen
Dances of foreign countries.

89. **American Square Dance.** (1) A.W.S. Three periods each week. Heaton, Jensen
Square and round dances of the United States and dances of the Americas.

Lower Division Courses for Women

10. **Basketball.** (1) A.W. Calderwood

11. **Volley Ball.** (1) A.W.S. Peterson

12. **Badminton.** (1) A.W.S. Peterson

20. **Intermediate Basketball.** (1) A.W. Cowan

30. **Golf.** (1) A.S. Two two-hour periods per week. Provo Municipal Golf Course. Fee. F. W. Dixon
Students will be required to furnish their own equipment.

31. **Tennis.** (1) A.S. Three periods each week. F. W. Dixon
Limited to 24 students per class.

32. **Skiing.** (1) W. Fee. Cowan, Jensen
First year skiing for participants of varying abilities. Sections will be formed according to participants abilities and instruction will be given in the fundamentals of climbing, touring, downhill, and slalom. (Permission to withdraw with refund restricted.)

33. **Field Sports.** (1) A. Daily for thirty-three class periods. Peterson
Soccer, speedball, and hockey will be taught. The class meets outdoors daily on all the days of good weather.

35. **Hockey.** (1) Daily for thirty-three class periods. Peterson

36. **Softball.** (1) A.S. Daily for thirty-three class periods. Calderwood

41. **Intermediate Tennis.** (1) A.S. Three periods each week. Prerequisite: Physical Education 31. F. W. Dixon

42. **Second Year Skiing.** (1) W. Cowan, Jensen
Second year skiing for participants of varying ability. Classification for instruction will be based upon ability. Fee. (Permission to withdraw with refund restricted.)

44. Outdoor Experience through Organized Hiking. (1) S. Saturday. Fee. Peterson

Hikes will be taken in the canyons and mountains of the vicinity. Short hikes are planned for the beginning of the quarter, and longer, more strenuous climbs will be taken at the end of the quarter.

45. Horseback Riding. (1) A.S. Fee. Holbrook

Individual and group instruction in riding with a development in the techniques and with instruction in the "aids." Correct handling of horses, and the development of gait will be taught. Progress will be graded from the beginning phases of horseback riding. Men may register for this course as "Recreation 45." (Permission to withdraw with refund restricted.)

46. Archery. (1) A.S. Daily for thirty-three class periods. Peterson

Individual techniques, with experience in various types of tournaments and related archery activities. Students will furnish their own arrows.

48. Recreational Sports. (1) A.W.S. Peterson

Individual, dual, and small group games and sports of a recreational sort will be developed. Selection will be made from this list: bowling, archery, canoeing, riding, quoits, shuffle board, handball, and others.

51. Skills and Techniques (for majors). (2) Three two-hour periods each week. Cowan

Soccer, speedball, and body mechanics.

52. Skills and Techniques (for majors). (2) Three two-hour periods each week. Cowan

Marching, gymnastics, volley ball, and tumbling.

53. Skills and Techniques (for majors). (2) Three two-hour periods each week. Cowan

Group games and relays, outdoor games, track and field, golf, and softball.

54. Skills and Techniques (for majors). (2) A. Three two-hour periods each week. Cowan

Hockey, badminton, tennis, practice and tests in activities calling for coordination, balance, flexibility, agility, and timing.

55. Skills and Techniques (for majors). (2) W. Three two-hour periods each week. Cowan

Basketball, rope jumping, and recreational games.

56. Skills and Techniques (for majors). (2) S. Three two-hour periods each week. Cowan

Recreational sports, swimming, archery, and golf.

60. Elementary Swimming. (1) S. Fee (Permission to withdraw with refund restricted.) Cowan

61. Intermediate Swimming. (1) S. Fee (Permission to withdraw with refund restricted.) Cowan

64. Life Saving. (1) S. Fee. Cowan

American Red Cross life saving course. (Permission to withdraw with refund restricted.)

65. Water Safety Instruction. (1) S. Fee. Cowan

American Red Cross water safety instructors' course. Prerequisite: Physical Education 64 or equivalent. (Permission to withdraw with refund restricted.)

66. Canoeing. (1) S. Fee Holbrook, Cowan

Provides instruction in canoeing techniques on the many and varied waterways of Utah County. American Red Cross Basic Canoeing Cards and Canoeing Instructor cards are issued to those students who qualify. Prerequisite: ability to pass swimming test or the holding of an intermediate or Life Saving Card. (Permission to withdraw with refund restricted.)

70. Tumbling. (1) A.W.S. Cowan, Jensen

Simple tumbling events in keeping with beginner's ability will be taught as foundation work. Other items will be given to develop skill and coordination for the fun and satisfaction of the performers.

72. Gymnastics and Body Mechanics. (1) A.W.S. Peterson

73. Game and Conditioning Activities. (1) A.W.S. Peterson

81a, 81b, 81c. Modern Dance Technique—Beginning. (1-1-1) A.W.S. Staff

Progressive fundamental movement techniques. These include axial and locomotor movements with their variations. Combinations of the foregoing are developed with influencing factors such as levels, focus, direction, and expressive qualities. These courses are continuous.

83a, 83b, 83c. Dance Composition—Beginning (1-1-1) A.W.S. Prerequisite: Have had or currently taking Physical Education 81a, 81b, 81c. Staff

Progressive fundamental compositional techniques.

87. Tap Dancing. (1) A.W. Two periods each week. Jensen

Simple routine and rhythms will be taught and worked out to old-time and modern music. Emphasis will be placed upon the recreative rather than the professional aspects of the activity.

88. Folk and Country Dancing. (1) A.W.S. Jensen

89. American Square Dancing. (1) A.W.S. Heaton, Jensen

Upper Division Courses for Men and Women

(Professional)

101. Athletic Coaching and Directing—Football (2) A. Staff

Fundamentals of the game, methods of working out plays, systems of offense and defense and conditioning of teams, etc.

102. Athletic Coaching and Directing—Basketball (2) W. Watts
Fundamentals of offensive and defensive systems, schedule making, etc.

103. Athletic Coaching and Directing—Track and Field. (2) S. Robison
Techniques of track and field athletics with emphasis upon the management of meets.

104. Coaching—Baseball. (2) S. Staff
Problems and duties of the baseball coach, including a study of individual techniques and team tactics, rules and training.

106. Officiating Football. (1) A. Watts
Rules, techniques, problems, and procedures in officiating football.

107. Officiating Basketball. (1) W. Watts
Rules, techniques, problems and procedure in officiating basketball.

120. Physical Education for Teachers of Primary Grades. (2) A. W.S. Holbrook, Cowan
(Required of all elementary teachers.)

121. Physical Education for Teachers of Intermediate Grades. (2) A.W.S. Cowan, Holbrook
(Required of all elementary teachers.)

130. Principles of Physical Education.* (3) A.S. Hart, Holbrook
Philosophy and principles underlying physical education for a general comprehension and unified view.

131. Administration of High School Athletics. (3) A. E. Kimball
Stress will be placed on the educational outcomes of high school athletics—its relationship to the intramural program—the physical education program—the school as a whole—the community. Methods of controlling athletics from the national and local points of view will be stressed. Junior high school and elementary school athletics will be analyzed and weighed. Problems of safety will be considered.

132. The Physical Education Plant—Building and Maintenance. (3) W. E. Kimball

This course covers basic constructive principles of physical education plants for elementary and secondary school and colleges. The planning of multi-purpose areas will be given consideration. Planning for gymnasia, fieldhouses, stadia and swimming pools for public schools, colleges, and universities will be discussed, and consideration will be given to the layout of courts, fields, and their care. Selection of playground apparatus for schools, communities, churches, and homes will be covered, and educational and safety procedures stressed.

133. Administration of Physical Education.* (3) A.S. Hartvigsen Soffe

The executive and administrative problems arising out of organizing and conducting health, physical education, and recreation programs in schools and communities.

134. Intramural Sports—Organization and Administration. (2) W. Soffe

Procedures concerning organization, administration, and supervision of the intramural program. Includes utilization of time and space of leadership organization; organization of pupils into effective competitive groups; and the necessary routine procedure for effective administration.

137. Basic Classroom Procedures in Physical Education. (4) W.S. (See Secondary Education Instruction 120) Bangerter Holbrook

138. Secondary Curriculum and Participation. (4) A.W.S. (Lab Fee $10.00) (See Secondary Education Instruction 138.) Holbrook, Bangerter

139. Secondary Student Teaching. (6) A.W.S. (Lab. Fee $10.00) (See Secondary Education Instruction 139.) Bangerter, Cowan, Holbrook, Soffe

140. Physiology of Activity. (3) A.S. Prerequisite: Zoology 45. Barney

A study of the processes which occur in the body during exercise. Special attention will be given to the effects of exercise upon circulation, respiration, and metabolism.

141. General Kinesiology. (3) A.W. Prerequisite: Zoology 45. Barney, F. W. Dixon

The anatomy of the human body with emphasis upon the study of bones, joints, muscles, and their action. Athletic exercise will be studied, with reference to its effect upon the body.

142. Physical Inspection.* (2) S. Williams

Teaching the student ways of recognizing abnormalities of body function by inspection and testing procedures.

143. Problems in Athletic Conditioning and Injuries. (3) W. Barney

146. Adaptation of Activities in Corrective Procedure.* (3) W.S. Prerequisites: Zoology 45; Physical Education 141. Barney

Variations of posture, the mechanics of balancing of the forces in the body, psychology of individual gymnastics, methods of stimulating interest in posture, and the selection and scope of corrective activities.

154. Introduction to Tests in Physical Education.* (5) W.S. Hart

A background course in physical achievement tests. The history of the development, together with an analysis of outstanding tests in physical education and statistical procedures used in analyzing tests.

170. Laboratory and Driver Education. (1) S. Staff

172. Driver Education and Training for High School Teachers.* (2) S. Two periods each week. Fee. Bangerter, Staff

This course is designed to qualify high school teachers and instructors in driver education and behind-the-wheel training. (See Secondary Education 172.)

175. Safety Procedures in Physical Education and Recreation.* (2) W. Bangerter

Presents the incidence of accidents in physical education and recreation; the nature of these injuries; and the cause of such accidents. The treatment of the injuries and the procedure for their prevention are discussed.

180. Specialty Dance. (1) A.W.S. Prerequisite: Physical Education 81a, 81b, 81c or equivalent. Staff

181a, 181b, 181c. Dance Techniques—Advanced. (1-1-1) A.W.S. Glover

183a, 183b, 183c. Problems in Teaching Dance. (1-1-1) A.W.S. Glover

Analysis of methods with directed application as assistants and demonstrators in dance classes.

184a, 184b, 184c. Concert Dance. (1-1-1) A.W.S. Glover

Performance techniques and composition for modern dance.

185a, 185b, 185c. Percussion Accompaniment. (1-1-1) A.W.S. Glover

A study of rhythmic fundamentals with emphasis upon various types of instruments.

186a, 186b. Piano Improvisation for Dance. (1-1) W.S. Prerequisite: A fundamental skill at the keyboard, or Physical Education 185a, 185b, 185c. Glover

187. Philosophy and Principles of Dance. (2) A. Glover

188. History of Dance. (3) S. (Not given this year.) Glover

189. Dance Production. (2) W. Glover

Research in problems for dance concerts. Suggestions for costumes, choreography, and accompaniment are to be considered.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

Prerequisites to admission to graduate study—undergraduate degree or equivalent in field and acceptance by Department Graduate Committee.

230. Seminar in Administration. (3) Staff

235. Basic Relationships. (5) W. Staff
A course to integrate the College offerings in Recreation Education, Physical and Health Education, Youth Leadership, Scouting, The Dance, and Athletics.

236. Curriculum Construction and Current Problems. (5) S. Hart

247. Principles and Practices of Physical Reconditioning. (3) A. Prerequisites: Health 45, P.E. 141, 146 or equivalent. Barney

255. Tests and Measurements in Physical and Health Education. (3) W. Prerequisites: Physical Education 154 or equivalent. Hart

292. Research in Physical Education. (5) A. Hart

294. Readings in Physical Education. (2) A.W.S. Staff

300. Thesis for Master's Degree. Staff

301. Field Project. (2-6) Staff

Physics

Professors: W. Hales (chairman, 280 ESC), H. J. Fletcher, Marshall.

Associate Professors: Eastmond, Gardner*.

Assistant Professors: Aamodt, Geertsen, R. Hales, Hoyt, Miller.

Instructors: Boel, Oak.

Students majoring in physics have the following courses prescribed: Physics 41, 42, 43, 121, 122, 123, 195, 196, 197; and at least fifteen or more hours of additional courses selected from the upper division courses in the department.

Students who expect to study engineering or physical sciences should begin their study of physics by electing courses 41, 42, 43. Students who expect to study medicine or major in the fields of biological science should begin their study of physics by electing courses 31, 32, 33.

Non-science students may elect with profit courses 1, 2, 16, 21, 26, and 27, which may be taken without prerequisite and which are organized with the view of giving the student an appreciation of his physical environment. Physics 26 and 27 are not recognized as fulfilling the general education requirement in physical science.

Physics is one of the subjects comprising the composite major in mathematics and the physical sciences designed for prospective teachers.

For Acoustical Engineering, Electrical Engineering, Mechanical Engineering, see Department of Engineering Sciences.

Entrance Requirements. It is intended that a student intending to major in physics shall have met the general entrance requirements of the College of Physical and Engineering Sciences, as stated on page 455 of this catalog.

Suggested Courses for Physics Major

In order to satisfy the general education requirements and at the same time obtain sufficient work in undergraduate physics to make the pursuit of graduate work profitable, the physics major must plan his program carefully.

For physics majors the following program is recommended for the first two years:

First Year	A	W	S
*Math 15, 16, 17	5	5	5
Chemistry 14, 15, 16	5	5	5
English 1, 2, 3	3	3	3
Religion	4	..	2
Phys Ed.	1	1	1
Health 1	--	..	1
Electives	--	5	--
Total	18	19	17

Second Year	A	W	S
*Math 98, 99, 100	5	5	5
Physics 41, 42, 43	5	5	5
Religion	2	2	2
Language or electives	5	5	5
Total	17	17	17

*The series Math 11, 12, 13, 91, 92, 93, 111, 112 might be substituted for the mathematics courses suggested above. If the student finds it necessary to take Math 1, he should follow it with Math 11 and 12 winter quarter of the first year.

During the junior and senior years courses should include all or most of those listed in the following sample program. Students pursuing specialized or terminal courses in physics can substitute for the starred courses those more suitable to their particular program.

Third Year	A	W	S
Physics 121, 122, 123	4	4	4
*Physics 111, 112, 113	3	3	3
Math 113	..	..	3
*Physics 171, 172, 173	2	2	2
Religion	2	2	2
Electives	7	7	4
Total	18	18	18

Fourth Year	A	W	S
*Math 191, 192, 193	3	3	3
Physics 141, 142, 143	5	5	5
*Physics 151, 152 153	3	3	3
Religion	2	2	2
Physics 195, 196, 197	1	1	1
Electives	4	4	4
Total	18	18	18

Lower Division Courses

PHYSICAL SCIENCE

1, 2, 3. **Concepts of Physical Science.** (3-3-3) (GER-PS) Staff

This course starts autumn quarter and continues through the year. All three courses must be taken to receive credit which will meet the requirements for general education in the physical sciences. Emphasis will be devoted to a penetrating application of the methods of science to a relatively few basic topics rather than to a superficial survey of many.

Lower Division Courses

PHYSICS

1. **Essentials of Physics.** (3) A.W.S. (GER-PS) Staff

An introductory description of common experiences with physical phenomena, with emphasis on energy in its various forms and manifestations.

2a. **Fundamentals of Physics.** (3) A. (GER-PS) Staff

Introductory treatment of basic concepts of physical phenomena, with applications in nursing techniques.

2b. **Fundamentals of Physics.** (3) W. (GER-PS) Staff

Introductory treatment of basic concepts of physical phenomena, with applications in music, speech and hearing, color and image production.

2c. **Fundamentals of Physics.** (3) S. (GER-PS) Staff

Introductory treatment of basic concepts of physical phenomena, with household applications.

16. **Descriptive Astronomy.** (3) A.W.S. (GER-PS) McNamera
This course is designed for those wishing a general knowledge of the facts, theories, and methods of astronomy. Frequent use will be made of the observatory.

21. **Weather and Climate.** (4) W. (GER-PS) W. Hales
A study of the earth's atmosphere and the problems associated with climate and weather forecasting.

26. **Photography.** (4) A.S. W. Hales
A study of the camera and its accessories, lenses and image formation, photographic laboratory arts and techniques. Two lectures and one laboratory period per week.

27. **Photography.** (3) (Not given this year.) W. Hales
Continuation of Physics 26 with emphasis on photographic emulsions sensitometry, toning, and color processes. Not recognized as fulfilling general education requirement in physical science. Two lectures and one laboratory period per week.

31. **General Physics, Mechanics and Sound.** (5) A. (†GER-PS)
Prerequisites: Mathematics 11 and 12 or equivalent. Staff
Courses 31, 32, and 33 constitute a general college course in physics. This course will satisfy the requirements of pre-medical and pre-dental students. Majors in the biological sciences will find the subject matter of these courses selected to meet their needs.

32. **Heat and Light.** (5) W. (†GER-PS) Staff
Continuation of Physics 31.

33. **Electricity.** (5) S. Staff
Continuation of Physics 32.

41. **General Physics, Mechanics and Sound.** (5) A. (†GER-PS)
Prerequisites: Mathematics 11 and 12. Staff
Enrollment in Mathematics 91 or 98 required. Courses 41, 42, and 43 constitute a general college course in physics. This general course is required of all physics majors and will satisfy the requirements in physics for physical science and engineering majors. It is a prerequisite for all the specialized courses in physics.

42. **Heat and Light.** (5) W. (†GER-PS) Staff
Continuation of Physics 41.

43. **Electricity.** (5) S. Staff
Continuation of Physics 42.

Upper Division Courses

Prerequisites for all upper division courses in physics are Calculus and Physics 41, 42, 43.

111. **Heat.** (3) A. Miller
A study of temperature, heat transfer, and thermal properties of matter.

112. Thermodynamics. (3(W. Miller
A study of the laws of thermodynamics and their application to numerous physical and chemical phenomena.

113. Kinetic Theory. (3) S. Miller
A study of molecular motions and the transfer of mass, momentum, and energy in gases, liquids, and solids.

121, 122, 123. Mechanics. (4-4-4) A.W.S. R. Hales
Fundamental principles of mechanics and their application to physical problems.

131. Physical Meterology. (3) A. Not given this year. W. Hales
The physics of the earth's atmosphere. A study of the causes which produce variations in the pressure, temperature, and humidity of the air and their influence upon weather and climate.

132. Dynamic Meteorology. (3) W. Not given this year. W. Hales
A continuation of course 131—with special emphasis on the thermodynamics and hydrodynamics of the atmosphere.

133. Synoptic Meteorology. (3) S. Not given this year. W. Hales
A continuation of course 132—in which weather analysis and weather forecasting will be studied. Daily weather maps including frontal data, atmospheric cross sections, and various thermodynamic charts will be constructed as part of the laboratory work.

141, 142, 143. Electricity and Magnetism. (5-5-5) A.W.S. Marshall
Electrostatics and D.C. and A.C. circuit theory; introduction to electronics.

145, 146, 147. Electronics for Physicists. (3-3-3) A.W.S. Prerequisite: Physics 141, 142, 143 or equivalent. Aamodt

151, 152, 153. Atomic and Nuclear Physics. (3-3-3) W. Hales
A study of the structure of the atom as revealed by X-rays, radioactivity, spectroscopy, nuclear theory, and related subjects.

157, 158, 159. Experimental Optics. (2-2-2) A.W.S. Eastmond
Fundamental principles of geometrical and physical optics with emphasis on experiments with prisms and lenses, dispersion and spectra, interference, diffraction, and polarization.

167. Architectural Acoustics. (5) (Not given this year.) Prerequisite: Consent of the instructor.
Fundamental behavior of sound in rooms. Effects of shape and size upon the perception of speech and music. Proper use of public address and sound reinforcing systems, sound absorption and insulation properties of different kinds of room walls. Kinds and amounts of sound absorption materials to use in the sound treatment of rooms and auditoriums.

168, 169, 170. Psycho-Acoustics.* (3-3-3) Not given this year.) Prerequisite: Electrical Engineering 163.

A study of speech and hearing from a communication engineering view point. A dynamical analysis of the speech and hearing processes will be developed. The known experimental facts about speech and hearing will be systematically studied and compared with the calculated results.

171, 172, 173. Fundamentals of Acoustics.* (3-3-3) (Not given this year.) Prerequisite: Electrical Engineering 163. Fletcher

174, 175, 176. Acoustical Measurements.* (2-2-2) (Not given this year.) Prerequisites: Physics 261, 262 ,263. Staff

177, 178, 179. Advanced Musical Acoustics.* (2-2-2) A.W.S. Prerequisite: Consent of instructor. (Not given this year.)

181. Laboratory Arts. (2) A. Staff

Processes connected with the construction and use of apparatus in the physical laboratory.

183. Advanced Physical Measurements. (1-3) A.W.S. Staff

Precision measurements involving special laboratory techniques and the solution of some research problems. Required of all majors in physics in senior year.

187, 188, 189. Advanced Photography. (2-2-2) A.W.S. Prerequisites: Physics 26, 41, 42, 43, and general chemistry. W. Hales

A laboratory course in the more advanced photographic principles, including sensitometry, physical development, toning, natural color, printing, etc.

191. Readings in Modern Physics. (1-3) A.W.S. Staff

A reading course designed to acquaint the student with new material which may not have been included in the regular courses.

195, 196, 197. Seminar. (1-1-1) A.W.S. R. Hales

A survey of the physical theories and topics in modern research. A course for seniors in which the student is aided in integrating the specialized courses.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

201, 202, 203. Nuclear Physics. (2-2-2) R. Hales

205, 206, 207. Introduction to Theoretical Physics. (3-3-3) A.W. S. Hoyt

211. Advanced Mechanics. (3) Gardner

212. Dynamics. (3) Gardner

213. Theory of Relativity. (3) Gardner

231, 232, 233. Atomic Physics and Spectroscopy. (3-3-3) (Not given this year.) A.W.S. Eastmond

237, 238, 239. Molecular Physics and Microwave Spectroscopy. (3-3-3) Prerequisite: Permission of the instructor. Aamodt

241 242, 243. Mathematical Theory of Electricity and Magnetism. (3-3-3) Gardner

251, 252, 253. Quantum Mechanics. (3-3-3) (Not given this year) A.W.S. Gardner

271, 272, 273. Modern Theory of the Solid State. (2-2-2) A.W.S. (Not given this year.) Hoyt

291. Readings in Modern Physics. (1-3) A.W.S.
W. Hales, Eastmond, Gardner, R. Hales

292, 293, 294. Classical Experiments. (2-2-2) A.W.S. Marshall
W. Hales, Eastmond, Gardner, R. Hales

295, 296, 297. Seminar. (1-1-1) R. Hales

300. Thesis for Master's Degree. Staff

Political Science

Professors: Jensen (emeritus), Pond.

Associate Professors: Poll (chairman, 254 McK), Caldwell, Grow.

Assistant Professors: Carr, Hunt, Reeder.

Instructors: Fielding, Fisher, Jones, Mabey, Riggs.

REQUIREMENTS FOR A MAJOR IN POLITICAL SCIENCE

Upper division courses in this department are generally arranged in six main areas of study: I. Political Theory, II. Politics, III. Public Administration, IV. Comparative Government, V. International Law and Relations, and VI. Public Law.

A major in Political Science requires the satisfactory completion of at least 45 hours of work in this field, distributed as follows:

Required courses: Political Science 10, 11; 12 or 15; 101, 190.

Elective courses: Twenty-five hours, including **at least one course from each** of the six main areas of upper division work, **selected in consultation** with the Political Science Department.

A comprehensive examination is given to all majors in the the second quarter of the senior year.

It is recommended that the major in Political Science include History 20 and 21 in his basic program.

Political Science 10, 11, and 12 or 15 should be completed by the end of the sophomore year. Courses and sequences other than those required should be selected in consultation with the department chairman, who will advise the student also in the selection of his minor field.

Political Science is designated as a "composite major" in social science. (See College of Education.)

AMERICAN HISTORY AND GOVERNMENT REQUIREMENT

In satisfying this requirement for graduation, the major student in Political Science is advised to offer **one** of the following combinations:

Political Science 10 and History 20.
Political Science 10 and History 21.
Political Science 10 and History 74.

History 70 and History 80 are **not** recommended for majors in Political Science as the means of fulfilling this graduation requirement.

Lower Division Courses

5. **Current Affairs.** (2) A.W.S. (GER-SS) Poll
A survey of current events with special attention to historical background and present implications in economics, sociology, politics, and international relations.

10. **American Government.** (5) A.W.S. (GER-SS) Staff
Historical development of American national government; origin and growth of the constitution; constitutional rights of the citizens; a detailed study of the executive, legislative, and judicial departments of the national government.

11. **State and Local Governments.** (5) A.S. (GER-SS) Staff
Nature of the federal government; evolution of states from territories; place of the states in the nation; legislative and judicial branches of state government; the types of municipal government and their relative values.

12. **Foreign Governments.** (5) A.W. (GER-SS) Staff
General study of selected European, Asiatic, and Latin-American governments; their development, organization, administration, and politics.

15. **Introduction to International Relations.** (5) W.S. (GER-SS) Riggs
A survey of the basic principles, laws, practices, and institutions which are involved in the relations of nations, pointed toward an understanding of contemporary international problems and developments.

Upper Division Courses

I. Political Theory:

104. **The Development of Political Thought.** (5) A. Caldwell
The history of political thought: Socrates, Plato, Aristotle, Epicureans, Cynics, Stoics, Cicero; early and medieval Christian thinkers, Machiavelli, Hobbes and others, to Locke.

105. **Modern European Political Thought.** (5) W. Caldwell
Modern and contemporary political thought, including the development and criticism of liberal, socialist, communist, fascist, and conservative doctrines.

106. **American Political Thought.** (3) S. Jensen
American political ideas from the colonial period to the present, with an analysis of their influence upon the development of American history and government. (See History 176.)

181. **Jurisprudence.** (5) S. (1956-7 and alternate years) Caldwell
(See description under VI.)

II. Politics:

110. **Political Parties in the U.S.** (3) A. Grow
Organization and methods of action of political systems in the United States.

115. **Public Opinion and Propaganda.** (3) W. Grow
Trends of public opinion and the techniques which have been instrumental in shaping it.

116. American Legislative System. (3) S. Grow
Structure and organization of congressional, state, city, legislative bodies, nature of business transacted; influences acting upon such bodies.

120. Contemporary Problems. (3) A. Poll
Seected topics which involve the formulation of American public policy in the areas of economics, sociology, politics and international relations.

III. Public Administration:

130. Introduction to Public Administration. (5) A.W. Grow, Jones
Relationship of administration to other branches of government; types of control over administration; central and local government.

131. Personnel Administration. (3) A. Jones
A treatment of the processes, procedures, controls, and problems of personnel administration in the executive branches of federal, state, and local governments.

133. Municipal Government and Administration. (3) W. Grow
Growth, development, and organization of cities in the United States; relation of city and state governments; problems, activities of modern American cities: traffic, city planning, zoning, police, health, fire protection, finance.

134. Administration of American Foreign Policy. (3) (1957-8 and alternate years.) Grow
The organizations administering U. S. foreign policy. Special emphasis on structure and function of the State Department and the foreign service, the role of Congress in foreign relations.

135. Government and Business. (3) A. Staff
General survey of governmental activities affecting business. The political, economic and legal bases of governmental regulation, and the probable limits and difficulties inherent in our existing economic system in applying such regulation.

137. Government Finance. (5) W. Pond
(See Economics 167.)

183. Administrative Law of the U.S. (3) A. (1956-57 and alternate years.) Reeder
(See description under VI.)

IV. Comparative Government:

144. Government of the Soviet Union. (3) A. Mabey
Political heritage of Russia under the Czars; development of the Russian Socialist state and its political institutions, with reference to Marxist political ideology and its deviations under Lenin and Stalin.

145. English Government and Politics. (3) S. Carr

Development of the English Constitution; examination of the growth of cabinet government, the Crown, Parliament, Civil Service; local government and administration; the English judicial system.

146. Governments of the British Commonwealth. (3) (1957-58 and alternate years.) Carr

Development of colonial and dominion status; governments of Canada, Australia, New Zealand, South Africa, with some attention to recent developments in the Far Eastern Dominions.

148. History and Government of Canada. (3) (1957-58 and alternate years.) Grow

(See History 148.)

149. Governments of Latin-America. (3) (1956-57 and alternate years.) Hunt

Growth and political development of countries in the Latin-American area, with special reference to Argentina, Brazil, and Mexico.

150. Government and Politics of China. (3) S. Staff

Analysis of the constitutional and political processes of the Republic of China and the present Communist government.

V. International Law and Relations:

169. International Organization. (3) (1957-58 and alternate years.) Riggs

History and structure of international organizations, with particular emphasis on the United Nations organization and its specialized agencies.

170. International Relations. (5) (1957-58 and alternate years.) Carr

International relations in the contemporary world. Development of the modern state system, problems of international relations, and the emergence of international law and government.

171. Foundations of National Power (The Americas). (3) A. Fisher

An analysis of the Western hemisphere in terms of these elements of power: geography, natural resources, relations among the American nations, demography, and relations between the hemisphere and other portions of the world.

172. Foundations of National Power (Europe). (3) W. Fisher

An analysis of the European continent in terms of these elements of power: geography, natural resources, relations among the European nations, demography, and relations between Europe and other portions of the world.

173. Foundations of National Power (Near and Middle East.) (3) (1957-58 and alternate years.) Reeder

An analysis of the Near and Middle East from the perspective of geography, natural resources, population, politics, international relations.

174. Foundations of National Power (Far East and Pacific). (3) A. (1956-57 and alternate years.) Carr

An analysis of the Far East and Pacific Basin from the perspective of geography, natural resources, population, politics and international relations.

175. Development of American Foreign Policy. (5) S. Hunt

The role of the United States in international affairs from colonial times to the present. Emphasis will be placed upon the diplomacy of expansion, the Monroe Doctrine, and problems of the 20th century. (See History 184.)

176. Political Geography. (5) S. Fisher

(See Geography 176.)

179. International Law. I. (3) W. Reeder

Nature and function of international law; recognition, succession, jurisdiction, rights, and immunities of states; nationality and jurisdiction over nationals.

180. International Law. II. (3) S. Reeder

Jurisdiction over aliens; international responsibilities, status, and immunities of diplomatic officials; treaties; legal regulation of the use of force.

VI. Public Law:

179 International Law. I. (3) W. Reeder

(See description under V.)

180. International Law. II. (3) S. Reeder

(See description under V.)

181. Jurisprudence. (4) S. (1956-57 and alternate years.) Caldwell

Introduction to legal theory. A problem approach to ancient and modern legal philosophies, with special attention given the nature of justice and the relation of law and morality.

182. Introduction to Anglo-American Legal Institutions. (4) (1957-58 and alternate years.) Caldwell

The origins and development of common law and equity, the writ system, English and American court systems, basic legal terms, the anatomy of a law suit.

183. Administrative Law of the U.S. (3) S. (1956-57 and alternate years.) Reeder

Legal setting for administrative bodies and judicial control of administrative action. Cases in administrative law read and discussed.

185. American Constitutional Development. (3) W. Prerequisite: Political Science 10. Jensen

History and development of the Constitution of the United States; a study of its fundamental provisions, their interpretation and application in the functioning of the American system of government. (See History 175.)

186. Constitutional Law of the U.S. I. (5) A. Prerequisite: Political Science 10. Reeder

The American federal system.

187. Constitutional Law of the U.S. II. (5) W. Prerequisite: Political Science 10. Reeder

Fundamental rights and immunities.

Other Courses:

101. Bibliography and Research in Political Science. (3) A.W. Caldwell

Sources, materials, and methods of research in political science; government documents: national, state, international organization. Required for all majors in political science.

190. Senior Seminar. (2) A.W.S. Staff

Research seminar required of all majors in political science. This course should follow Political Science 101.

198. Directed Readings in Political Science (1-2) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

I. Political Theory:

202. Modern Political Ideas. (3) S. (1956-57 and alternate years.) Caldwell

203. Roots of American Democracy. (3) (1957-58 and alternate years.) Caldwell

II. Politics:

210. American Political Problems. (3) 1957-58 and alternative years.) Grow

215. Public Opinion and Political Behavior. (3) A. (1956-57 and alternate years.) Reeder

III. Public Administration:

230. Comparative Public Administration. (3) S. (1956-57 and alternate years.) Grow

232. **State and Municipal Administration.** (3) (1957-58 and alternate years.) Jones

IV. Comparative Government:

240. **Democratic Governments.** (3) (1957-58 and alternate years.) Riggs

241. **Totalitarian Governments.** (3) (1957-58 and alternate years.) Mabey

V. International Law and Relations:

269. **International Organization in the 20th Century.** (3) (1957-58 and alternate years.) Riggs

270. **International Relations in the 20th Century.** (3) W. (1956-57 and alternate years.) Riggs

280. **Modern International Law.** (3) (1957-58 and alternate years.) Reeder

VI. Public Law:

286. **Constitutional Law in the 20th Century.** (3) (1957-58 and alternate years.) Reeder

288. **Supreme Court of the United States.** (3) (1957-58 and alternate years.) Caldwell

Other Courses:

298. **Directed Readings in Political Science.** (1-2) A.W.S. Staff

300. **Thesis for Master's Degree.** (4-6) A.W.S. Staff

Portuguese

(See courses in Modern and Classical Languages.)

Poultry Husbandry

(See courses in Animal Husbandry.)

Pre-Dental

(See College of Biological and Agricultural Sciences.)

Pre-Legal

(See College of Humanities and Physical Sciences.)

Pre-Medical

(See College of Biological and Agricultural Sciences.)

Pre-Optometry

(See College of Biological and Agricultural Sciences.)

Pre-Osteopathy

(See College of Biological and Agricultural Sciences.)

Pre-Pharmacy

(See College of Biological and Agricultural Sciences.)

Pre-Physical Therapy

(See courses in Physical Education.)

Pre-Veterinary

(See College of Biological and Agricultural Sciences.)

Psychology

Professors: Allen (chairman, SFC), Poulsen (emeritus).

Assistant Professors: Howell, R. M. Peterson, C. Taylor, F. R. Wilkinson.

Instructors: Hardy, Moffitt, Viles.

The science of psychology has a place in the general education of everyone in his search for an understanding of himself and others. It concerns itself with such questions as: How does man experience and react to the world around him? What factors and processes underlie the mental life and behavior of individuals and groups?

In the last few decades psychology has extended its interests and activities into most phases of human activity. Not only is it a science in its own right, but it has important applications and contributions in a wide variety of fields. It has specific relevance for students preparing for careers in teaching, counseling, industrial relations, social work, law, medicine, and in many branches of government service. Furthermore, it enriches and clarifies for the individual many of the concepts in the other sciences, in the humanities, and in the arts.

For a major in Psychology, a total of 45 hours is required, including courses 11, 110, 111, 113, 115, 116, and one seminar. The remainder of the program must be elected from upper division courses. A maximum of 10 of the 45 hours may be chosen from a selected list of courses in other departments, with the consent of the department advisor.

Students minoring in Psychology are urged to contact an advisor in the Department early in order to work out a program adapted to their individual needs.

Lower Division Courses

1. Effective Study. (2) A.W.S. Staff

A practical course in such activities as budgeting time, notemaking, memorizing, straight thinking, use of library, etc. Open to lower division students only, except by consent of instructor.

5. Psychology of Adjustment. (3) A.W.S. Staff

A practical course dealing with the applications of psychology to typical problems of college students in such areas as emotional, social, and vocational adjustment. Not intended for those who have taken or will take Psychology 11.

11. General Psychology. (5) A.W.S. (GER-SS) Allen, Hardy, Howell, Moffitt, Peterson, Taylor, Wilkinson, Viles

Foundation course covering the essentials of the modern scientific psychology. Prerequisite for all upper division psychology classes.

22. **Appled Psychology.** (3) A.W.S. (†GER-SS) Prerequisite: Psychology 11. Viles
Survey of applications of psychological principles and techniques in the fields of business, industry, advertising and selling, legal procedures, medicine, and education.

110. **Cognitive Processes.** (4) A.W. Prerequisite: Psychology 11. Allen, F. Wilkinson
A core course for majors, minors, and other advanced students. Nature of process of knowing; sensory mechanisms; dimensions of sensory experience; learned and unlearned factors; perceptual constancies; perception of space, time, self, and persons; role of motivation; personality and perceptual organization; abnormal perceptual tendencies; imagining, problem solving and creative thinking.

111. **Motivation.** (4) W.S. Prerequisite: Psychology 11. Hardy Moffitt
A core course for majors, minors and other advanced students. Theories of motivation; research methods and results; biological bases of motivation; social origin of motives; drive and drive reduction; homeostasis; learning theory and motvation; concept of instinct; self-esteem, defense, enhancement; cultural patterns and values; emotions and motivation; conflict, unconscious factors; contemporary methods of measuring motivation; motivation as related to learning and cognitive processes; some practical implicatons of motivation theory.

Upper Division Courses

112. **Advanced General Psychology.** (5) A.W. Prerequisite: Psychology 11. Allen, Peterson
Intensive survey of the general field with special emphasis on topics not covered in detail in Psychology 11. Basic theoretic issues underlying psychology as a science; essentials of scientific method; levels of interpretation of behavior; biological and social interaction; basic issues in current learning theories, and their practical implicatons; survey of neurological functions: sensory processes; social sources of psychological functions. Intended for minors or other advanced students not planning to take 110, 111, and 116.

113. **Elementary Statistics.** (5) A.S. Peterson
The logic and understanding of basic descriptive and inferential statistics and their relation to problems of relatively simple experimental design. Problems and techniques: variability, central tendency, correlation, scaling, combination of measures, common sampling distributions, standard error, and concepts of significance. Presupposes mastery of elementary mathematics. (See also Educational Research and Services 115, Sociology 176, and Mathematics 152s.)

115. Experimental Psychology. (4) A.W. Four lectures or demonstrations and six additional laboratory hours per week. Prerequisite: Psychology 11. Peterson, F. R. Wilkinson

Consideration of psychological methodology and its application to fields of sensation, perception, learning, emotional expression, reaction time, work, and fatigue.

116. Abilities. (4) A.S. Prerequisites: Psychology 11 and 113. Howell, Taylor

A core course for majors, minors, and other advanced students. Philosophical implications of measurement; statistical methodology of assessing and interpreting abilities; tests of abilities and their purposes; group differences of abiltiies.

118. History and Modern Viewpoints. (5) A. Prerequisite: Psychology 11. Howell

Historical background of present-day psychology and a comparative study of certain important contemporary trends in psychology.

120. Psychology of Childhood. (3) A.W.S. (†GER-SS) Prerequisite: Psychology 11. Howell, Taylor

Psychology of Childhood. Critical presentation of fundamental research on physical, mental, emotional and social development of the child; biological and social factors in development; prenatal development; introduction to research methods in child psychology; basic factors in the development of interests, values, motivational and adjustment patterns; some consideration of practical problems of the home and the school; a course directed primarily to majors and minors but also of value to the advanced general student.

122. Psychology of Adolescence. (3) A.W. (†GER-SS) Prerequisite: Psychology 11. Howell, Taylor

Consideration of development and maturation during adolescence. with special attention to research methodology and basic research results. Emphasis on problems of sex-social adjustment, achievement of independence, vocational adjustment, emotional and social maturing, interaction between physiological and psychological factors in the maturing process.

126. Development and Adjustment During the Middle and Later Years. (3) W. Prerequisites: Psychology 11, Human Development and Family Relationships 40 and one other course in Human Development and Family Relationships. Taylor, Staff

(See Human Development and Family Relationships 120.)

130. Clinical Psychology. (3) A. Prerequisite: Psychology 11. B. Robinson, C. Taylor

A survey of the field of clinical psychology; professional relationships; etiology of problem behavior; diagnostic techniques and remedial procedures; applications to home, school, industry, and community. (See also Health 130.)

131. Exceptional Children. (3) A. Prerequisite: Psychology 11. Allen, Taylor

Varieties of exceptional children; diagnostic problems; interaction of deviate child with his environment; special problems of personality development and adjustment; pschological characteristics of the gifted, mentally retarded and defective; children with sensory and physical handicaps, emotional and behavior problems; self-concept of exceptional children; a survey course for students of psychology, education, speech, family life, and others concerned with guidance of children.

139. Abnormal Psychology. (3) S. Prerequisites: Psychology 11 and consent of instructor. Allen

Dynamics of maladjustment; implications for normal psychology; description and meaning of abnormal and unusual psychological functions; character disorders, psychoneuroses, and psychoses; modern therapeutic procedures.

140. Psychology of Personality. (4) A. (†GER-SS) Prerequisite: Psychology 11. Moffitt

Historical background; major theories; motivation; problems of traits, types, organization of personality; genetic and cultural determinants; marks of mature personality; modification of personality.

143. Mental Hygiene. (3) A.W.S. (†GER-SS) Prerequisite: Psychology 11. B. Robinson, Viles, F. Wilkinson

Intended to yield insight toward the prevention and amelioration of mental and personal difficulties. Important for prospective parents, teachers, and social workers. (See also Educational Research and Services 106 and Health 143.)

145. Social Psychology. (5) S. (†GER-SS) Prerequisite: Psychology 11. Hardy

The nature of social influence; socialization; concepts of norm, role, status; development and change of beliefs and attitudes; leadership; group processes. Applications to such topics as ethnic prejudice, persuasion, national character, social control.

164. Industrial Psychology. (3) A.W.S. Prerequisite: Psychology 11. Hardy, Moffitt

Special application of psychology in human relations program for management. Also important issues in relation to motivation, morale, safety, efficiency, etc. (See also Business Management 164.)

165. Business Psychology. (3) A.S. Prerequisite: Psychology 11. Moffitt

Psychological aspects of business, especially in advertising, personal selling, and research techniques in these fields.

167. Personnel Psychology. (3) A.S. Prerequisite: Psychology 11. Peterson

Selection, application, and interpretaton of psychological tests; job analysis; personality problems of the worker. (See Business Management 167.)

180. Comparative Psychology. (5) W. Prerequisite: Psychology 11. F. Wilkinson

Survey of methods and results of comparative research on animal learning, innate behavior patterns, motivation, social behavior, individual differences, abnormal behavior; correlation of structure with function.

181. Physiological Psychology. (5) S. Prerequisite: Psychology 11. F. Wilkinson

Development and structure of the nervous system; levels of neural organization; physiological correlates of psychological functions: sleep, activity, drives, learning, intelligence; localization of function; correlation of sensory functions with underlying structures.

191, 192, 193, 194. Psychology Seminar. (1-1-1-1) A.W.S. Two seminars required of psychology majors. Staff

Reports and discussion of special topics and current psychological literature.

198. Independent Readings. (1-3) A.W.S. Staff

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

213. Advanced Statistics (Second Course). (3) W. Howell

214. Methods of Research. (3) W. Peterson

228. Psychology of Learning. (3) S. Peterson

230. Advanced Clinical Psychology. (2) W. C. Taylor

231. Psychsomatic Problems. (3) A. B. Robinson

235. Mental Deficiency. (3) S. Allen

236. Psychology of the Physically Handicapped. (3) W. C. Taylor

237. Gifted Children. (2) S. Allen

245. Group Dynamics. (3) W. Hardy

250. Human Behavior: Theory. (3) W. Moffitt

251. Personality: Culture and Adjustment. (3) A. Hardy

272. Individual Test Practice. (5) W.S. Howell, B. Robinson

273. Projective Techniques. (3) S. B. Robinson

291, 292. Seminar. (1-1) A.W.S. Staff

298. Independent Readings. (1-3) A.W.S. Staff

299. Independent Research. (1-3) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Radio and Television

(See courses in Journalism and Speech and Dramatic Arts.)

Recreation

Professors: W. Hales, Harrison, Holbrook, Nash.

Associate Professors: Andrus, I. Heaton (chairman, SFH).

Assistant Professors: Alder, F. W. Dixon, Gamett, Stewart, Turner.

Instructors: Calderwood, Cowan, A. Heaton, Jensen.

See page 434 for state certification in composite major in Physical Education, Health Education, and Recreation.

RECREATION MAJOR

Students majoring in Recreation will take the following courses: Recreation 47, 60 or 63, or 156, 61 or 62, 70, 80, 131, 137, 162, 167, 187, 188; Physical Education 11, 12, 30, 31, 32, 46, 48, 70, 88, 89, 120, 121, 134, 137, 138 and an additional 12 hours of special interest to be selected by the student with departmental approval.

RECREATION MINOR

A minor in Recreation is obtained by completing the following courses: Recreation 47, 60 or 63, 80, 131, 137, 162, 167, 187, 188; Physical Education 88 and 89 and nine additional hours to be elected from the following: Recreation 10 28, 30, 44, 45, 67, 100; Physical Education 11, 12, 30, 31, 32, 46, 51, 52, 53, 54, 55, 56, 70, 120, and 121.

(See Department Chairman for copy of complete 4-year course of study in Recreation Education.)

Lower Division Courses

2. **Speech** 2. (3) A.W.S. Staff
(See Speech and Dramatic Arts 2.)

3. **Plant Taxonomy.** (5) S. Three lectures and two two-hour laboratory periods each week. Harrison
General principles of taxonomy and the use of manuals with emphasis on the classification of the local flora. (See Botany 3.)

10. **Bowling.** (1) A.W.S. Fee $5 to $7. Dixon

26. **Photography.** (3) A.S. W. Hales
Lectures on the theory and art of photography; laboratory exercises in photographic manipulation, determination of the characteristics of photographic materials, color, sensitivity, etc. (See Physics 26.)

28. **Upholstery.** (2) A. Two two-hour periods per week. Gamett
Typical forms of upholstery, including foundations with and without springs. (See Industrial Arts 28.)

30. Tool Technique. (3) A. Gamett
(See Mechanics 30.)

31, 32. Cabinet Construction. (3) W.S. Three two-hour periods per week. Prerequisite: Mechanics 20. Gamett
Use of hand machine tools in the construction of fine furniture. Drawings, specifications, and cost estimates of all projects must be submitted. (See Ind. Arts 31, 32.)

41. Radio and Television Broadcasting. (3) A.W.S. Rich
(See Speech 4.)

44. Outdoor Experience through Organized Hiking. (1) S. Saturday. Fee. Calderwood
Hikes will be taken in the canyons and mountains of the vicinity. Short hikes are planned for the beginning of the quarter, and longer, more strenuous climbs will be taken at the end of the quarter.

45. Horseback Riding. (1) A.S. Two periods each week. Holbrook
Group instruction in riding with a development in the techniques and with instruction in "aids." Correct handling of horse and the development of gait will be taught. Progress will be graded from the beginning phases of horseback riding.

47. Outing Activities. (1) A.S. Fee. Cowan
Selected seasonal activities will be conducted which may include such activities as snowshoeing, hiking, horseback riding, canoeing, sleighing, ice skating, tracking and trailing, and nature observation. Individual expense may be incurred in some of these activities. (Permission to withdraw with refund restricted.)

50. Wood Cutting. (2) A. Andrus
Wood cutting and related relief printing processes. (See Art 50.)

59. Ceramics. (2) A.W.S. Turner
Ceramics and pottery with clay as the basic medium. (See Art 59.)

60. Recreational Handicrafts. (1-3) A.W.S. Pierce
(See Ind. Arts 60.)

61. Newswriting. (3) A.S. Staff
(See Journalism 61.)

62. Reporting. (3) W. Staff
(See Journalism 62.)

63. Crafts. (2) A.W.S. Three periods each week. Stewart
Leather. wood, rafia, and reed used as basis for creative design. (See Ind. Arts 63 or Art 63.)

64. Plastics. (2) S. Staff
(See Ind. Arts 64.)

67. **Skills and Techniques for Outdoor Recreation.** (1) S. Fee. One two-hour period each week. Staff

Skills and techniques in various outdoor recreation activities including fly-tying, skish, and fly-casting will be given. Certain equipment including vise, feathers, thread, and hooks will be required of all students.

70. **Plastics.** (2) A. Two two-hour periods per week. Gamett

Fundamental hand and machine operations used in working. plastics. (See Ind. Arts 64.)

81. **South American Dances.** (2) A.W.S. A. Heaton

88. **Folk and Country Dancing.** (1) A.W.S. Holbrook, Jensen
(See P.E. 88.)

89. **American Square Dancing.** (1) A.W.S. Heaton, Jensen
(See P.E. 89.)

Upper Division Courses

100. **Art Metal Crafts.** (3) W. Prerequisites: Drawing 40 and Art 10. Three two-hour periods per week. Gamett

Projects in metal hand tooling in brass, copper, and aluminum, soldering and spinning. (See Mech. Arts 100.)

122. **Cub Leadership.** (3) A.S. Stone
(See Scouting Education 122.)

123. **Boy Scout Leadership.** (3) W.S. Stone
(See Scouting Education 123.)

124. **Explorer Leadership.** (3) W.S. Stone
(See Scouting Education 124.)

*131. **The Theory of Play.** (3) A. Holbrook

The theory of play and its organization. Gives consideration to the history and classification of play, the need for play in modern life, and play in education. (See Educational Instruction 172.)

137. **Philosophy of Recreation and Leisure.*** (3) A. Staff

This course analyzes the needs of individuals for recreation in our modern, complex society. The relationship of creative activity, full living, prevention of delinquency, and the organization of wholesome activity around the home will be fully discussed.

*138. **Administration of School and Community Camps.** (3) W. Staff

This course considers the objectives and problems involved in establishing community or school camps for children. Public agency camps will be considered rather than private camps, and best practices dealing with location, safety, health, and the program of activity will be thoroughly analyzed.

156. Arts and Crafts for Elementary Teachers. (2) A.W.S. Alder, Andrus, Staff
A practical course in handicrafts. Students will participate in simple weaving, clay modeling, dyeing, paper decorating, bookmaking, and other craft processes that can be carried on by children in the elementary school. (There will be a small fee for materials.) (See Educational Instruction 104.)

*162. **Sociology of Recreation.** (3) W. Staff
The modern social situation and the rise of the recreation movement; the basic theories of play and recreation; the relation of recreational activities and interests to personal growth, group behavior, and social adjustments. (See Sociology 162.)

167. Scouting in the L.D.S. Church. (2) A.W.S. Staff
A study of the fundamentals of the Boy Scout movement; basic training of leaders for scouting in the LDS Church. (See Church Administration and Scouting Education 167.)

180. Techniques of Teaching Ballroom, Square and Folk Dancing. (3) S. A. Heaton

187. Planning for Social Recreation. (2) A.W.S. Holbrook
Principles and techniques in arranging for and conducting social recreation for family and church groups. (See Church Administration 187.)

188. Leadership in Church Dances. (2) A.W.S. A. Heaton
This course is given to meet the needs of community, church, and school recreation leaders. Designed particularly to give experience and training in the church dance program. (See Church Administration 188.)

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry **only** graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

Prerequisites for admission to graduate study—under-graduate degree or equivalent in field and acceptance by Department Graduate Committee.

230. Seminar in Administration. (3) Staff

235. Basic Relationships. (5) W. Staff
A course to integrate the College offerings in Recreation Education, Physical and Health Education, Youth Leadership, Scouting, The Dance, and Athletics.

292. Research in Recreation. (5) A. Staff

294. Readings in Recreation. (2) A.W.S. Staff

300. Thesis for Master's Degree. Staff

301. Field Project. (2-6) Staff

Religion

Professors: Sperry (Director of Graduate Studies in Religion, 122S), Ellsworth, Nibley.

Associate Professor: Belnap (Director of Undergraduate Division, 222S), R. R. Rich.

Assistant Professors: Anderson, Bankhead, Barrett, Doxey, G. O. Larson, Ludlow, Rogers, Yarn.

Instructors: Bennett, A. I. Bentley, J. R. Clark, Pearson*, Rasmussen, Ricks*, Riddle.

Faculty members from other departments of the University also instruct classes in the Division of Religion.

GENERAL EDUCATION REQUIREMENTS IN THE DIVISION OF RELIGION

I. Freshmen and sophomore students must obtain a total of twelve hours credit in the following areas:

Book of Mormon, Scripture 11, 12, 13.
Church History 31, 32, 33.
Missionary Training, L.D.S. Church Administration 41, 42, 43.
New Testament, Scripture 23, 24, 25.
Theology 1, 2, 3.
Theology 4, 5, 6.

Each of these courses carries two credit hours per quarter. It is recommended that a student follow through all three courses of the sequences which are elected.

II. Juniors and seniors must obtain a minimum of six hours of upper division credit from the offerings of the Division of Religion which are **not** cross referenced for credit in other departments of the University. The remaining six hours of credit to fill the University requirement for graduation of twenty-four hours of credit in religion (or two hours per quarter for every quarter in residence) may be elected either from among the courses carrying cross-reference credit or from the other offerings of the Division of Religion.

Returned missionaries and transfer students ranking as juniors are not only permitted, but are expected, to elect upper division courses in religion.

Archaeology

M. Wells Jakeman, Chairman

(The following are courses in the Division of Religion that are offered by the Department of Archaeology of the College of Humanities and Social Sciences.)

Upper Division Courses

110. General Near Eastern and Biblical Archaeology. (3) A.W.S. Prerequisite: Archaeology 1 or History 10, or consent of instructor. Jakeman, Christensen

A survey of the principal excavations and monuments of archaeology in Mesopotamia, Egypt, Palestine, and other Near Eastern-Biblical lands, contributing to our knowledge of ancient oriental history and civilization. Special attention will be given the important discoveries of archaeology bearing upon the historical claims and geography of the Bible.

130. Ancient Civilizations of America. (3) A.W.S. Prerequisite: Archaeology 1 or consent of instructor. Jakeman, Christensen

A survey of the discovered archaeological history of the New World, with special attention to the ancient Middle American and Andean civilizations and the problem and theories of their origin; followed by a study of the historical record and geography of the Book of Mormon, giving the claims of this early srripture as to the origin and earliest history of these civilizations; and of the latest evidence of archaeology bearing upon these claims. (Introduction to Book of Mormon archaeology.)

191. Special Studies in Biblical Archaeology. (1-2) A.W.S. Staff

192. Special Studies in Book-of-Mormon Archaeology. (1-2) A.W.S. Staff

Bible and Modern Scripture

Roy W. Doxey, Chairman

Lower Division Courses

11, 12, 13. Introduction to the Book of Mormon and Its Teachings. (2-2-2) A.W.S. (GER-R) Staff

A consideration of the origin, content, and teachings of the Book of Mormon.

23, 24, 25. An Introduction to the New Testament and Its Teachings. (2-2-2) A.W.S. (GER-R) Staff

The life and teaching of Jesus and Paul and the historical situations which gave rise to the New Testament.

Upper Division Courses

101, 102, 103. The Old Testament. (2-2-2) A.W.S. (GER-R) Rasmussen, Rogers

This course deals with the structure and religious content of the Old Testament. An attempt is made to show that Israel's leaders had a vital religious message for the world of today.

104. The Spirit of the Old Testament. (2) S. (GER-R) Martin

An analysis of the literary problems, religion, and spirit which characterize the Old Testament.

111. **Israel's Prophets** .(2) A.W.S. (GER-R) Rogers, Sperry, Rasmussen

The messages of the Old Testament Prophets—major and minor—are examined for the value they have and have had both in their time and in ours. Correlations with New Testament and modern prophecy are considered.

113. **The Life of Christ.** (2) A. (GER-R) Bankhead, Bentley

A consideration of the sources for the life of Christ; the political, religious, and geographical environment. An analysis of the Savior's prominent teachings, and a study of the Passion Week and Resurrection Period.

114. **Paul the Apostle and Missionary.** (2) W. (GER-R) Bankhead, Bentley

An examination of the life and teachings of the Apostle; his missionary problems and their resolution; results of his work.

115. **An Historical Examination of the New Testament.** (2) S. (GER-R) Bankhead, Bentley

An analysis of the structure of the New Testament. A consideration of its writings and forces which produced them.

124. **Analysis of the Book of Mormon.** (2) A.W.S. (GER-R) Sperry

A critical analysis of the Nephite literature.

125. **The Doctrines of the Book of Mormon.** (2) A.W.S. (GER-R) Bankhead

An advanced course dealing with the doctrines and teachings of the Nephite sacred scripture. Recommended especially for students who have not had Religion 11, 12, and 13.

131, 132, 133. **The Doctrine and Covenants.** (2-2-2) A.W.S. (GER-R) **Doxey**

A study of the origin and content of the Doctrine and Covenants.

138. **The Pearl of Great Price.** (2) A.W.S. (GER-R) (Not given this year) Staff

A preliminary study of the origin and content of the Pearl of Great Price.

139. **Doctrines of the Pearl of Great Price.** (3) A.W.S. (GER-R) **Staff**

An advanced course dealing with the doctrines and teachings of the Pearl of Great Price.

141, 142, 143. **Seminar.** (Arr.) A.W.S. Sperry, Nibley, Doxey, Rasmussen, Bankhead, Pearson

Intended for senior or other advanced students who desire to pursue specialized problems related to the Bible and modern scripture. Admission by permission of instructors.

Church History

Russell Rich, Chairman

Lower Division Courses

31, 32, 33. **Latter-day Saint History and Doctrine.** (2-2-2) A.W.S. (GER-R) Staff

A survey course in the history of the Church with a progressive study of the development of its institutions, beliefs, doctrines, and religious practices in relation to their social and historical setting.

Upper Division Courses

101, 102, 103. **History of the Church of Jesus Christ of Latter-day Saints.** (2-2-2) A.W.S. (GER-R) Recommended for students who are juniors or seniors who have had 31, 32, 33. Barrett, Larson, Rich

An intensive study of the history of the Church from 1805 to 1847.

104, 105, 106. **History of the Church of Jesus Christ of Latter-day Saints.** (2-2-2) A.W.S. (GER-R) Recommended for students who are juniors or seniors or who have had 31, 32, 33. Barrett, Larson, Rich

An intensive study of the history of the Church from 1848 to 1930.

107. **Biography of L.D.S. Leaders.** (2) A.W.S. (GER-R) (Not given this year.) Staff

114. **The Primitive Church and the Apostasy.** (2) A. (GER-R) Nibley

115. **The Rise of the Western Church, to 600 A.D.** (2) W. (GER-R) Nibley

116. **The Medieval Church, 600-1500 A.D.** (2) S. (GER-R) Nibley

L.D.S. Church Organization and Administration

Chauncey Riddle, Chairman

Lower Division Courses

15. **The Latter-day Saint Family.** (2) A.W.S. Staff

The significance of the family in the gospel plan of salvation and exaltation. L.D.S. scriptural ideals of marriage and parenthood. The family in genealogical research and temple work.

41 42, 43. **Missionary Approach to the Gospel.** (2-2-2) A.W.S. (GER-R). Staff

Open to all students. Intended for those who cannot elect the more intensive missionary-training course.

Upper Division Courses

Priesthood

101. Priesthood and Church Government. (2) A.W.S. (GER-R) Doxey

This course deals with the powers, authority, and functions of the priesthood and its role in Church government.

Church Welfare

111. The Church Welfare Program. (2) A.W.S. (GER-R) Doxey

A study of the historical development and the economic and spiritual aspects of the L.D.S. Welfare Program.

Genealogy

117. The Principles of Genealogy and Temple Work. (2) A.W.S. (GER-R). Bennett

Principal topics: genealogy in the plan of salvation, mission of Elijah, research, pedigree, family and temple records, Genealogical Society of Utah, Church ordinances, marriage, and temple work. Class trip to office of Genealogical Society.

118. Methods of Genealogical Research. (2) A.W.S. (GER-R). Prerequisite: 117 or consent of instructor. Bennett

Missionary Methods

Classes in this section are provided primarily for students who look forward to missionary service in the stakes and missions of the Church. Courses 121, 122, and 123 form a single unified fifteen-hour program for persons who desire, for a single quarter, to study problems related to the presentation of the gospel. (Lower division students may be admitted by consent of the instructor.)

121. Latter-day Saint Doctrine. (5) A.W.S. (GER-R) Bankhead, Ellsworth

A scriptural approach to certain vital doctrinal themes commonly used in the mission field.

122. Latter-day Saint Doctrine. (5) A.W.S. (GER-R) Doxey

A continuation study of vital doctrinal themes commonly used in the mission field.

123. Great L.D.S. Missionaries. (5) A.W.S. (Not given this year.) Staff

An examination of the writings, methods, and spirit of certain great Latter-day Saint missionaries.

125, 126, 127. The Gospel in French. (2-2-2) A.W.S. Prerequisite: 15 hours of French or consent of instructor. J. R. Clark III

A consideration of the gospel message and problems incident to its presentation in French-speaking countries.

(See French 115, 116, 117.)

131, 132, 133. The Gospel in German. (2-2-2) A.W.S. Prerequisite: 15 hours of German or consent of instructor. Watkins

A consideration of the gospel message and problems incident to its presentation in German-speaking countries.

(See German 115, 116, 117.)

137, 138, 139. The Gospel in Spanish. (2-2-2) A.W.S. Prerequisite: 15 hours of Spanish or consent of instructor. Gibson

A consideration of the gospel message and problems incident to its presentation in Spanish-speaking countries.

(See Spanish 115, 116, 117.)

146, 147, 148. Missionary Leadership. (2-2-2) A.W.S. (Not given this year.) Ricks*, Bankhead

Returned missionaries will help train prospective missionaries.

149. Economics of the Gospel Plan. (2) A.W.S. (GER-R) Ellsworth

The art of applying the principles and philosophy of the gospel to everyday situations, including vocational selection, personal records, investments, insurance, purchasing, etc.

151, 152, 153. Church Administration. (5-3-3) (151, A.S.; 152, W.; 153, S.) (Not given this year.) Staff

Consecutive courses. Autumn: understanding children; Winter: curriculum, methods, and practice teaching; Spring supervision. For teachers, executive officers, and stake board members of the auxiliary organizations.

157. Sacred Music. (2) A.W.S. Staff

The place and influence of music in worship; a study of the history and appreciation of the Latter-day Saint hymns. Students are given instruction and practice in conducting.

161. Sacred Music Before 1650. (2) A. Keeler

162. Sacred Music: 1650-1750. (2) W. Keeler

163. Sacred Music: 1750 to present time. (2) S. Keeler

Mutual Improvement Association

167. Scout Leadership. (2) A.W.S. Bentley

A study of the fundamentals of the Boy Scout movement; basic training of leaders for scouting in the LDS Church.

184. M.I.A. Drama. (2) S. H. I. Hansen

A study and practice of the forms and functions of drama used in the Mutual Improvement Program.

187 Planning for Social Recreation. (2) A.W.S. Holbrook

Planning social activities for the home and church.

188. Leadership in Church Dances. (2) A.W.S. A. Heaton

This course is given to meet the needs of community, church, and school recreation leaders. Designed particularly to give experience and training in the church dance program. (See Recreation 188.)

Theology and Philosophy

Assistant Professor: Yarn (chairman, 112 S)

THEOLOGY

Lower Division Courses

1, 2, 3. An Introduction to Mormonism. (2-2-2) A.W.S. (GER-R). Staff

An examination of the basic principles of Latter-day Saint Theology for non-LDS investigators of the gospel.

4, 5, 6. The Principles and Doctrines of Mormonism. (2-2-2) A.W.S. (GER-R) Staff

A consideration of the basic principles and doctrines of the Church of Jesus Christ of Latter-day Saints.

Upper Division Courses

101, 102, 103. The Principles, Doctrines, and Philosophy of the Church of Jesus Christ of Latter-day Saints. (2-2-2) A.W.S. (GER-R). Doxey, Ludlow

The distinctive doctrines and principles of the Restored Gospel of Jesus Christ. Recommended for upper division students who have not had 4, 5, 6.

132. Your Religious Problems. (2) A.W.S. Belnap

A consideration of problems pertaining to the individual student.

131, 133. Seminar. (Credit to be arranged) A.W.S. Staff

PHILOSOPHY

108. Survey of Philosophy. (3) A. (GER-R; GER-HA) Yarn

An introduction to the types, fields, and problems of philosophy.

110. Introduction to Logic. (3) A.W.S. (GER-R; GER-HA) Riddle

Formal aspects of language; deductive logic and scientific method.

111. Philosophy of Science .(3) A. (GER-R; GER-HA) Prerequisite: Phil. 108 or consent of instructor. Riddle

Discussion of the methods, postulates, and conceptual framework of modern physical science.

112. Problems of Knowledge. (3) W. (GER-R; GER-HA) Prerequisite: Phil .108 or consent of instructor. Riddle

Analysis of how experience becomes knowledge.

113, 114, 115. Moral Values, A Comparative Study. (2-2-2) A.W.S. (Not given this year.)

Conduct patterns suggested by Latter-day Saint concepts of personal immortality, eternal progression, and the eternity of the family union.

125. The Scientist Looks at Religion. (2) (Not given this year.) Staff

Certain concepts of religion in the light of modern science.

Church History and Philosophy

Sidney Sperry, Director of Graduate Studies in Religion

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201. Survey of Religious Education. (2) (Not given this year.) Belnap

202. Methods and Techniques for Religious Educators. (2) (Not given this year.) Belnap

(See Instruction 263.)

221. Special Problems in L.D.S. Church History. (2) A. Larson, Rich

222. Special Problems in L.D.S. Church History. (2) W. Larson Rich

223. Special Problems in L.D.S. Church History. (2) S. Larson Rich

241. Historical Development of L.D.S. Doctrines and Practices. (2) A. Rich

242. Historical Development of L.D.S. Doctrines and Practices. (2) W. Rich

243. Historical Development of L.D.S. Doctrines and Practices. (2) S. Rich

244. Advanced Theology. (2) S. Staff

251. Problems in Teaching Religion. (2) S. Staff

261. World Religions: Principles of Comparative Religion. (2) (Not given this year.) Nibley

262. World Religions: Cult, Myth, and Priesthood in the Near East. (2) (Not given this year.) Nibley

263. World Religions: Ritual Patterns. (2) (Not given this year.) Nibley

264. The End of the Ancient World. (3) S. Nibley

271. **Research Problems in Genealogy.** (2) A.W.S. Prerequisite: Church Administration 118. Bennett

281. **History of Ancient Philosophy.** (3) A. Yarn

282. **History of Medieval Philosophy.** (3) W. Yarn

283. **History of Modern Philosophy.** (3) S. Yarn

284. **Recent American Philosophy.** (3) S. Yarn

285. **Ethical Theory from Plato to Dewey.** (3) (Not given this year.) Yarn

286. **History of Christian Thought.** (2) (Not given this year.) Yarn

287. **Survey of Patristic Literature.** (2) S. Nibley

288. **Types of Religious Philosophy.** (3) W. Yarn

300. **Thesis for Master's Degree.** Staff

Scripture

Sidney Sperry, Director of Graduate Studies in Religion

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior** to registration and meets the same requirements made of the graduate students.

201. **The History of Israel.** (3) A. Sperry, Rasmussen, Rogers

202. **The Prophets of Israel.** (3) W. Sperry, Rasmussen, Rogers

203. **The Manners and Customs of the Hebrews.** (2) S. Sperry

204. **Interpreting the Old Testament.** (2) S. Sperry, Rasmussen

206. **The Life and Teaching of Christ.** (3) A. Staff

207. **The Life and Letters of Paul.** (3) W. Staff

208. **The Non-Pauline Epistles and the Apocalypse.** (2) S. Staff

209. **Interpreting the New Testament.** (2) S. Staff

211. **An Analysis of the Book of Mormon.** (2) A. Sperry

213. **An Analysis of the Doctrine and Covenants.** (2) W. Sperry

215. **The Pearl of Great Price.** (2) S. J. R. Clark

300. **Thesis for Master's Degree.** Staff

Semitic Languages

Sidney Sperry, Director of Graduate Studies in Religion

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor **prior to** registration and meets the same requirements made of the graduate students.

221, 222, 223. Elementary Hebrew. (5-5-5) A.W.S. No prerequisites. Rasmussen

Taught as a "living language" for use both by those who wish to converse and those who wish to use it as a tool for studying and teaching the Old Testament. Methods and materials for teaching Hebrew in the light of modern language methodology are taught. Open to qualified undergraduates with consent of instructor.

224. Advanced Hebrew Grammar. (3) A. Rasmussen

225. Hebrew Syntax and Selected Readings from Jonah and Ruth. (3) W. Rasmussen

226. Hebrew Syntax and Selected Readings from Judges and Samuel. (3) S. Rasmussen

227. The Hebrew Text of Haggai, Amos, and Malachi. (2) A. Prerequisite: Two years of Hebrew or consent of instructor. Sperry, Rasmussen

228. The Hebrew Text of Obadiah, Joel, and Zechariah 9-14. (2) W. Prerequisite: Two years of Hebrew or consent of instructor. Sperry, Rasmussen

229. Selected Portions of the Hebrew Text of Isaiah. (2) S. Prerequisite: Two years of Hebrew or consent of instructor. Sperry, Rasmussen

230. The Hebrew Text of Psalms. (2) A. Prerequisite: Two years of Hebrew or consent of instructor. Sperry

231, 232, 233. Biblical Aramaic and the Targums. (2-2-2) A.W.S. Prerequisites: 221, 222, 223. Sperry

234. The Reading of Ancient Hebrew Inscriptions. (2-3) Given on demand. Prerequisites: Two years of Hebrew or consent of instructor. Sperry

241, 242, 243. Elementary Syriac. (3-3-3) A.W.S. Prerequisites: 221, 222, 223. Sperry

244, 245, 246. Advanced Syriac. (2-2-2) A.W.S. Sperry

251, 252, 253. Elementary Akkadian. (2-2-2) A.W.S. Prerequisite: Two years of Hebrew or consent of instructor. Sperry

255, 256, 257. Elementary Egyptian. (2-2-2) A.W.S. (Hieroglyphics) Prerequisite: Two years of a Semitic language or consent of instructor. Sperry

261, 262, 263. First Year Arabic. (5-5-5) A.W.S. **Nibley**

300. Thesis for Masters Degree. **Staff**

R. O. T. C.

(See courses in Air Science.)

Russian

(See courses in Modern and Classical Languages.)

Scouting Education

A degree is granted through the College of Recreation, Physical and Health Education, and Athletics.

Professor: J. B. Nash.
Associate Professor: R. B. Stone, (department chairman).

See the Department Chairman for required General Education courses and copy of complete four year course of study in Scouting Education.

Students who major in Scouting Education will be required to include the following courses: Health Education 1, 157, 160, 195; Physical Education 11, 12, 32, 46, 56, 64, 65; Recreation 131, 162. Other elective courses are recommended to provide additional experience and opportunities for the student: Physical Education 31, 80, 88, 89, and Recreation 123.

Scouting Courses for Youth Leadership Majors

101. National Camp School. (1) Summer only. Nat'l Staff

Required of Scouting majors only. This is a course given by the National Council, Boy Scouts of America. The faculty consists of National Staff Camping, Health, and Safety experts. It is designed to prepare the student to become a member of Local Council Summer Camp Staff.

Length of Course: Eight full days and nights. Usually held in June at a Council Summer Camp site.

102. Summer Camp Administration. (1) Summer only. Nat'l Staff

Required of Scouting majors only. Each Scouting major will be required to serve on a Local Summer Camp Council Staff for at least one Summer Camp Season during the time he is working for his degree. Placement for Summer Camp will be arranged through the Scouting Department Chairman.

120. Conference Planning Techniques. (2) S. Stone

Theory and practice of planning conferences. Demonstrating the various techniques of pre-conference involvement, preparing a conference program, developing a conference theme, training discussion leaders, types of presentations, leading discussion sessions, and past conference follow-up.

Laboratory-Explorer Scout Conference on B.Y.U. Campus. Boy Scout Pow-Wow on Campus.

121. Modern District Roundtable. (3) W. Stone

The effectiveness of Scouting in the Unit is determined by how well and enthusiastically the Unit Leader can interpret the Program of Scouting to the boy. This course is prepared to give theory and practice to the student in the preparation and development of "Roundtable" meetings. This course will culminate in actual experiences of working with professional and lay personnel in the Roundtable meetings.

122. Cub Leadership. (3) A. Stone

This course is designed to teach men how to administer the Cub Scout Program within an institution. Includes practice and theory of program planning, Den Meetings, planning Pack Meetings, Den Mother training, helping the Cub grow, administering a Pack, planning the yearly program, and Den Mother relationship. Laboratory work included in course—visitation to Pack meetings, assist Local Council to set up training course for Den Mother, or Pack Committeeman, or Cubmaster, or visit monthly Roundtable Meeting.

123. Boy Scout Leadership. (3) W. Stone

This course is designed to teach men how to use the Patrol Method to bring Scouting to boys 11-14 years of age. Course content includes Patrol Method, developing Troop Leaders, planning the program and activities of a Troop, helping the boy grow. It is a course of learning by doing, which will involve the student in actual Patrol and Troop experiences of Patrol Method, camping, cooking, and skills learning as well as field trip observation of how Scouting functions in regular Troop Meetings.

124. Explorer Leadership. (3) S. Stone

Course arranged to bring to students the latest techniques in working with young men 14-17 years old, and bringing to them the Explorer Program. (Exploring, Sea Exploring, Air Exploring). Course content will include fundamentals of Boy Scouts of America and what Exploring is, mechanics of unit operation, advancement in Exploring, program planning, emergency service and service project planning, and skills training. Students will also be required to visit units in their regular meetings and activities, to assist in District Explorer Roundtable Meetings, Courts of Awards, and Explorer social events and special projects.

125. Program Planning. (3) A. Stone

Program planning will involve the student in actual unit program planning processes, combined with practical application of the principles of program planning in unit situations in the local Council.

130 A, B, C. Council Operating Committees and their Function. (3-3-3) A.W.S. Stone

Study will be made of how operating committees establish program and objectives to bring the full scouting program, through district committees and unit leaders, to the boy.

131. Commissioner Service. (3) A. Stone

Duties and responsibilities of Council, District and Neighborhood Commissioners will be studied.

This will include how the Commissioner works with the sponsoring institutions and its unit personnel to bring the program of Scouting to their boys. Types of Commissioner Meetings will be studied and demonstrated. Roundtable Meetings will be planned and dramatized in the classroom. Field Service will require student participation in the planning and conducting of Roundtable Meetings in actual District operation. Time will be given to studying ways and means of helping the District to implement the National and Local Council Program at unit level..

132. Scoutings' Sponsors & Public Relations. (2) W. Stone
A study of Scouting relationships to its major sponsoring bodies, churches (Protestant, Catholic, Jewish, Church of Jesus Christ of Latter-day Saints), service clubs, fraternal orders, government agencies, schools, and also a study of the Public Relations Program of the Boy Scouts of America.

133. History and Development of the National and Local Council. (3) (Not offered this year.) Stone
Course divided into two parts; dealing first with the organization of the National Council, its function, relation and service to Local Councils, and secondly the organization of the Local Council, its functions, relation and service to sponsoring bodies and a study of both National and Local Council Constitution and By-Laws.

134. District Operation. (3) A.S. Stone
In a large measure the strength of Council's operation is determined by the function of its Distrcit Committee. This course is designed to teach the student how a District functions, dealing with selection and recruiting of man power, working with a Nominating Committee, training and orienting a District Committee and its officers, types of meetings, implementing the Council & National Council Program, and preparing the Committee Agendas. Visitation and participation of District Committee will be included in this course.

190. Field Activity Course. (3) W. Stone
Camporee, Rally, Circus, Expositions and Cub Craft Shows are some media through which Scouting demonstrates to its public what it is doing with and for youth. Students will be required in this course to create plans for each of these activities and when possible help a Local Council plan, preprepare, and present one of the named activities.

Not required for Youth Leadership Major:
Church Administration 167 or Scouting Education 167 (2) Scouting in LDS Church.

It is recommended that students majoring in Youth Leadership select a closely allied field to Youth Leadership as their minor.

Scripture

(See courses in Religion.)

Secondary Education

(See courses in Education: Instruction.)

Secretarial Training

(See courses in Business Education and Office Management)

Semitics

(See courses in Modern and Classical Languages and in Religion.)

Sewing

(See courses in Clothing and Textiles.)

Sociology

Professors: Bradford (chairman, SFC), Ballif*, Lloyd, Symons.

Associate Professor: Smith

Assistant Professors: Canning, Dyer, Payne, Slater.

Instructors: Empey, V. W. Larsen.

Sociology is one of the social sciences which study human behavior. Specifically, sociology studies the importance of behavior and the fact that men interact with one another, live in groups, and develop social systems, institutions, roles, statuses and culture.

As it grows and develops as a science, sociology has an expanding contribution to make to individuals and societies. Some areas in which its contribution is of importance include: (1) Supplying a better understanding to the individual of his own behavior as an interacting personality, (2) analyzing the principles of social organization, thus making intelligent social planning possible, and (3) discovering laws of social change, a knowledge of which is crucial for legislators and administrators.

Sociology, therefore, has relevance for those planning careers of social work, teaching, counseling, research, scouting, Red Cross work, community planning and government service.

Majors in the department are required to take courses 11, 12, 103, 104, 110, 180, 182, either 188, 189, and to present total sociology credit of 45 hours or more. A maximum of 10 of the 45 hours may be chosen from a selected list of courses in other departments ,with consent of the department advisor.

Recommended courses, beyond those required, are listed below for each of several goals that sociology majors might have in mind:

General cultural education—any or all courses.

Teaching—107, 108, 112, 114, 124, 128, 136, 140, 141, 152, 156, 160, 162, 170, 172, 176.

Social Work—112, 114, 116, 124, 128, 132, 136 ,138, 144, 146, 147, 160, 162, 170, 172.

Research and/or graduate study—114, 118, 141, 152, 160, 170, 172, 178, 180, 182, 184, 187.

Sociology is one of the subjects comprising the composite major in social science designed for prospective teachers. (See page 434.)

Lower Division Courses

11. **Introductory Sociology.** (5) A.W.S. (GER-SS) Staff

This course is designed to give the groundwork for all sociological study. It presents a general view of social organization, social forces, and a practical working theory of the nature of society.

12. Social Problems. (5) A.W.S. (GER-SS) Staff
Presents an analysis of the forces within society which produce disorganization and develop social problems. Specific problems such as crime, race discrimination, mental illness, divorce, etc., are analyzed in terms of current theories of social disorganization.

13. Foundations for Marriage. (2) A.W.S. Staff
Attempts to assist the college student in preparing for a successful marriage. Emphasis is given to such areas as dating, factors to be considered in mate selection, early marital adjustment, etc.

17. Group Relationships and Principles of Leadership. (3) A. Larsen, Bradford
A practical course designed to (1) help the individual effectively participate in group life and (2) assist those who occupy positions of leadership to become efficient in the performance of their roles.

Upper Division Courses

103. Development of Sociolgical Thought. (3) A. Bradford, Canning
An analytical study of leading sociological thought from early times to and including the work of Herbert Spencer. Considers the origins of sociology.

104. Contemporary Sociological Theory. (3) W. Bradford, Canning, Smith
Emphasis is given to major developments in contemporare sociology. The contributions of leading present-day sociologists are analyzed.

107. Development of Social Reform Movements in the United States. (3) W. Symons, Payne
A study of the social aspects of representative, economic, political and social thought from Adam Smith to John Dewey, as they have influenced social reform movements in the United States.

108. Cultural Anthropology. (3) W. Canning, Dyer
Consideration is given to the meaning and content of culture in various societies throughout the world.

110. Principles of Sociology. (3) S. Bradford, Canning, Dyer
An analysis of the generalizations derived by sociology concerning how social interaction, groups, institutions, roles, statuses and culture affect human behavior.

112. Social Aspects of Mental Health. (3) S. Symons, Canning
A study of personality disorders and emotional maladjustments which originate in group life. Attention will be given to social causation, manifestations, treatment and prevention of these mental ills.

114. Social Psychology. (3) W. (GER-SS) Canning, Larsen
Analysis is made of the processes by which the individual develops motives and attitudes, the function of social norms,

the adjustment of the individual to social roles, and the importance of communication in the behavior of individuals and groups. The social significance of the mob-mind, propaganda, and other similar group phenomena is evaluated.

116. **Social Control.** (3) S. Larsen, Smith
A study of the way in which the group controls the behavior of the individual. Emphasis is given to the importance of public opinion, belief, social suggestion, ceremony, personal ideals, etc. as means of controlling behavior.

118. **Social Ethics.** (3) A. Lloyd
(See Educational Values and Philosophy 100.)

124. **Introductory Criminology.** (3) A. (GER-SS) Smith, Symons, Empey
A study of the nature and extent of criminal behavior. Emphasis is placed upon current theory and research as they relate to the causes of crime.

125. **Juvenile Delinquency.** (3) W. Symons, Smith
The lawlessness of children and adolescents is analyzed. Causations, treatment, prevention and outlook are stressed.

127. **Organized Crime.** (3) S. Symons, Empey
A study of the historical backgrouds for and the development of organized crime in the United States. Measures and proposals for counteracting and preventing it are considered.

128. **Race Relations.** (3) W. (GER-SS) Symons, Ballif, Larsen
A study of the basic processes operating in present-day inter-relations of racial groups. Analysis is made of the problem created by prejudice with emphasis given to its causes and programs for its reduction.

134. **Social Legislation.** (3) (Not given this year.) Ballif
A study of the basic principles and techniques of social legislation. Various systems now in operation are noted and analyzed.

136. **Community Organization.** (3) A. Ballif, Larsen, Dyer
Considers the basic fundamentals of community life. Analyzes techniques and methods for the efficient achievement of community objectives.

138. **Cooperative Movement.** (2) (Not given this year). Ballif, Larsen
The organizational and functional principles of the movement are analyzed. The course includes consideration of the types of cooperatives and basic problems encountered by them.

140. **Sociology of Adjustment in Modern America.** (3) S. (GER-SS). Bradford, Dyer
This is a practical course designed to assist the individual in understanding some of the basic features of present-day America, thereby permitting him to achieve his social goals in the most efficient manner. Special attention is given to adjustment problems in marriage and the family, profession or occupational, educational, governmental and similar areas.

141. Human Relations in Industry. (3) A. Larsen

The development of the industrial plant as a social organization is considered. Special attention is given to labor-management relations, the role that social forces in society play in determining industrial organization, and the major problems of applied industrial sociology.

144. An Introduction to Social Work. (3) A. Ballif, Symons, Slater

An introductory survey of the various fields and methods of social work is undertaken. Consideration is given to the implications of social work for related professions.

146. An Introduction to Social Case Work. (2) W. Slater

Principles and practices of case work with the maladjusted and the dependent are analyzed.

147. An Introduction to Field Experience in Social Work. (1) S. Symons, Slater

Designed to acquaint the student with agencies actually engaged in social work. Trips are made to such agencies and a general summary given of the activities engaged in. This course is to be taken concurrently with Sociology 146.

150. Culture, Society, and the Development of Personality. (3) A. Staff

A study of the role of culture and society in the formation and functioning of personality.

Comparisons are made of various peoples and cultures, such as the Navajos, Hopis, Winnebagos, Balinese, and modern Americans. Differential effects upon personality are analyzed, which result from child-training practices, social expectations, roles, statuses, and concepts of "normal" and "abnormal" in these different societies.

152. Effect Upon Society and Individuals of Population Processes. (3) A. Bradford, Smith

Attempt is made to give insight to the problems created for individuals and society by such population processes as migration, birth, and death. Attention is also given to the importance of sex composition and the creation of individual and social problems. A population policy for the United States is analyzed.

156. The Sociology of Rural Life. (3) A. Payne, Symons, Bradford

Attention is given to the particular features and problems of rural life. Some of the basic social institutions in the United States are analyzed and some of the important social problems encountered by them are considered.

160. The Sociology of Urban Life. (5) W. Smith, Payne

This course is a study of the characteristics and problems of urban life. Special emphasis is given to human ecology, a study of the importance of physical and spatial factors in the social organization of man.

162. Sociology of Recreation. (3) W. Ballif, Payne
Consideration is given to the rise of the recreational institution. The basic theories of recreative activities are analyzed and the relation of recreational interests to growth, group behavior and social maladjustments is treated.

170. Achieving Success in Marriage. (3) A.W.S. (GER-SS) Ballif, Bradford, Staff
An analysis is made of the factors that contribute to a successful marriage. Consideration is given to mate selection, management of family resources, parent-child relationships, and marital adjustment in a dynamic society.

172. The Family. (3) W. Symons, Empey, Bradford
This course presents a study of the history and development of the family as an institution. It analyzes the familial institution in several different societies and presents theories concerning the problems and future of the American family.

176. Educational Sociology. (3) A. Smith
An introductory study of the principles of educational sociology and their implication for the theory and practice of school administration, curricula, and methods of instruction.

178. The Sociology of Religion. (3) W. Ballif, Smith, Empey
This course presents a study of the history and development of religion as a social institution. It presents an analysis of several important religions and examines significant contemporary trends in religious behavior.

180. Social Statistics. (5) A. Canning, Smith
A course in the uses of mathematics in sociological research. Both descriptive and inductive statistics are studied. Specific subjects include measurements of central tendency, dispersion, symmetry, testing hypotheses, estimation from samples, and scientific prediction.

182. Methods of Research in Sociology. (5) W. Smith, Canning, Larsen
A critical survey of the various methods used in the investigation of sociological data. Theories of social research are examined. Assistance in analysis of data is given. Field projects give the student actual experience in research.

184. Advanced Research Methods. (2) S. Smith, Canning, Smith
This course is designed for seniors who intend to do research or continue in graduate work. The course consists of advanced training in the theory and practice of research and is designed to assist one to write the master's thesis in the field of sociology.

187. Advanced Statistics. (3) W. Smith, Canning
This is an advanced course designed for those who intend to do research or continue in graduate work.

188. Seminar. (2) W. Staff
Develops a conceptual scheme for studying some of the major sociological research projects.

189. Seminar. (2) S. Staff
Orients the student with regard to some of the principal journals in the field of sociology.

194, 195. Directed Research. (1-3) A.W.S. Staff
Opportunity is given the student to work out a problem in the field of his greatest interest. Direction is provided in the methodology of research in the field of sociology and in the adequate presentation of material.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry graduate credit **only**. A graduate course may be used by an advanced undergraduate in his baccalaureate program provided he secures the permission of the instructor **prior to** registration and meets the same requirements made to graduate students.

205. Advanced Sociological Thought. (3) W. Canning, Smith, Symons

206. Advanced Contemporary Sociology. (3) S. Bradford, Smith, Dyer

224. Research Methods in Criminology. (3) S. Symons, Smith, Empey

226. Penology. (3) W. Smith, Empey

230. Problems in Race Relations. (3) A. Symons, Ballif, Larsen

240. Research in Population and Demography. (3) S. Smith, Bradford

250. The Sociology of Personality Development. (3) A. Canning, Smith, Bradford

260. Social Change. (3) W. Symon, Larsen

292. Public Opinion. (3) S. Larsen, Ballif, Payne

296, 298. Special Research Problem. (1-3) A.W.S. Staff

300. Thesis for Master's Degree. Staff

Soils

(See courses in Agronomy.)

Spanish

(See courses in Modern and Classical Languages.)

Speech and Dramatic Arts

Professors: deJong, H. I. Hansen (chairman, 124SpC), Morley
Associate Professors: Bateman, Gledhill, O. Smith.
Assistant Professors: Clinger, Mecham, K. B. Pardoe, Skousen, Woodbury.
Instructors: Jex, McKinlay, O. Rich, Richardson, **Struthers**, Tanner.

REQUIREMENTS FOR MAJOR

It is recommended that students majoring in Speech and Dramatic Arts qualify for the foreign language requirement. Students may elect to specialize in one of five divisions of Speech. Required courses may be waived by the department committee on petition of the student. **Senior Seminar 162 is required of all majors.**

1. Theatre and Dramatic Art

	Hours
Basic courses: 1, 24, 41, 160, 162, 180.	22
Additional courses for specialization: 22, 23, 26, 122 or 123, 124, 125, 161a, 161b, 161c, 172.	26
Total Hours	48

Additional courses recommended: Speech 60, 112, 126; English 82, 143, 156, 182, 191; Physics 2.

Sequence of Courses

	Autumn	Winter	Spring	Any	Other Req.
First Year	1 (5)	24 (3)	22 (3)		
Second Year		23 (5)		26 (2)	
		122 (3)	123 (3)		
Third Year	161a (2)	161b (2)	161c (2)	160 (3)	
			172 (3)	180 (5)	
Fourth Year	124 (3)	125 (3)	162 (3)		

2. Public Speaking

	Hours
Basic courses: 1, 24, 41, 160, 162, 180.	22
Additional requirements for specialization: 11, 22, 100, 101, 162, 202 or 203, 287. plus 4 hrs. electives	25
Total Hours	47

Additional courses recommended: Speech 60, 107; courses in American History and Government.

Sequence of Courses

	Autumn	Winter	Spring	Any	Other Req.
First Year	1 (5)	24 (3)			Physics 2 (3)
Second Year	11 (3)	22 (3)			
			3 (3)		
Third Year	41 (3)	101 (3)	287 (3)	160 (3)	
Fourth Year	100 (3)	202 (3)		180 (5)	
	162 (3)				

3. Speech and Hearing Rehabilitation

	Hours
Basic courses: 1, 24, 41, 160, 162, 180.	22
Additional requirements for specialization: 60, 179, 182 or 183, 185, 186, 190, 191 or 192, 195a, 195b, 195c, 286, Psychology 143.	31
Total Hours	53

Additional courses recommended: Psychology 11, 121, 130, 139, 140, 171, 181; Ed. R. & S. 103; Elementary Education 160.

Note: Those students who plan to qualify for a Utah Certificate in Special Education with an emphasis on Speech and Hearing Correction must qualify for an Elementary or Secondary Teaching Certificate in addition to the outlined major in Speech Hearing Rehabilitation. Those seeking speech and hearing certification and also the general elementary credential may substitute course work as follows: Speech Education 118 (6 cr. hrs.) in lieu of one quarter practice teaching, Educational Instruction 118. Also, those students who will have had Speech Education 190, 191, and 192 (Clinical Methods) may take the course, Education Instruction 114 (5 cr. hrs.—overview of Elementary Instruction) in lieu of the regular requirements of Elementary Instruction 115, 116, or 117 (Curriculum and Methods).

Sequence of Courses

	Autumn	Winter	Spring	Other Req.
First year	1 (5)	24 (3)		
				Psych. 11 (5)
Second year	41 (3)	Physics 2 (3)	180 (5)	
		Zoo 45 (5)	179 (4)	
Third year	180 (5)	186 (3)	183 (2)	Psych. (3)
	185 (3)	182 (3)	191 (2)	
		190 (2)		
		160 (3)	195a (2)	
Fourth year	195a,	195a,	162 (3)	Psych. (3)
	b, or c (2)	b, or c (2)	195a,	
	192 (2)	286 (3)	b, or c (2)	
	Ed. R&S 103 (3)	160 (3)	Psych 143 (3)	

4. Radio and Television

	Hours
Basic courses: 1, 23, 24, 41, 160, 162, 180.	27
Additional courses for specialization (any 25 quarter hours from the following): 51, 52, 53, 60, 141, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 161.	21
Total Hours	48

Sequence of Courses

	Autumn	Winter	Spring	Any	Other Req.
First Year	1 (5)	23 (3)	24 (3)	41 (3)	(15)
Second Year	51 (3)	52 (3)	53 (3)		(10)
Third Year	151 (1)	152 (1)	153 (1)	160 (3)	
	154 (5)	155 (5)	156 (5)	180 (5)	
Fourth Year	157 (2)	158 (2)	159 (2)		
	149 (3)	141 (3)	150 (2)		
	162 (3)				

Students majoring in this area should select a closely related minor. The following minors are suggested: Sociology, Psychology, Political Science, Journalism, Music, Commerce, English, Education, and Home Economics.

5. General Speech for Teachers in Secondary Schools

	Hours
Basic courses: 1, 24, 41, 160, 162, 180.	22
Additional requirements for specialization: 2, 11, 22, 23, 26, 100, 120, 138, 139, 161.	23
Total Hours	45

Additional courses recommended: Speech 60, 107, 125.

Sequence of Courses

	Autumn	Winter	Spring	Any	Other Req.
First Year	1 (5)		24 (3)		Psych. 11 (5)
Second Year	11 (3)	23 (5)			Lang. (15)
			26 (2)		Lang. (10)
	22 (3)				
Third Year	41 (3)	161b (2)	161c (2)	160 (3)	Physics 2 (3)
	100 (3)				
	161a (2)	120 (4)			
Fourth Year	162 (3)	138 (4)			
		139 (6)			

For those students who plan to qualify for a Secondary Teaching Certfifcate, Speech 120, 138, and 139 will be required.

REQUIREMENTS FOR MINOR

The requirements for the general minor in Speech are made up of the basic courses required for all speech majors, e.g., Speech 1, 24, 160, 161 (6 hrs.), 180, plus 3 hours of electives.

The requirements for a minor in Speech and Hearing Rehabilitation are: Speech 1, 24, 171, 180, 182 or 183, 185 or 186, 190 or 191, 195a, 195b.

Lower Division Courses

1. **Fundamentals of Speech.** (5) A.W.S. Staff

A beginning course to aid self-improvement in speech as a mode of communication. It provides an opportunity to practice for greater effectiveness in your personal use of the various speech skills. This course is recommended for speech majors, prospective teachers, and all students who desire improvement in their everyday speech activities.

2. **Introduction to Public Speaking.** (3) A.W.S. Staff
A practical and general service course designed for all students who desire to improve their speech efficiency, poise, and self-confidence in public speaking situations. An opportunity to develop and improve skill in the organization and delivery of all types of speeches encountered in one's business, professional, social, and religious activities.

3. **Group Discussion.** (2) A.W.S. Staff
This course is concerned with a basic democratic procedure—cooperative thinking. It is addressed to those who serve on committees or boards; to those who attend staff meetings; to those who talk over common problems in church, school, or office—to all, in short, who are preparing to participate in, or lead informal discussion in small groups. Its purpose is a practical one—to promote more effective group thinking through discussion.

5p. **Speech Clinic.** (1) (Arr.) Mecham, Morley, Jex
Corrective treatment of stuttering, lisping, and other forms of speech disorders.

6p. **Speech Coaching.** (1) A.W.S. Staff
Personal attention to individual needs beyond classroom practice.

7, 8, 9. **Speech for Foreign Students.** (2-2-2) A.W.S. Jex

11. **Introduction to Argument and Debate.** (3) A.W.S. Richardson
The principles of argumentation and practice in debate.

12a, 12b, 12c. **Debate Techniques.** (1-1-1) A.W.S. Bateman, Richardson
Open to members of the Forensic Squad who obtain approval of the Speech Department and the Debate Council. To obtain credit in debating, students must register for this course, with at least two hours of instruction each week.

22. **Fundamentals of Interpretation.** (3) A.W.S. (†GER-HA) Prerequisite: Speech 24. Two-hour laboratory. Woodbury

23. **Fundamentals of Acting.** (5) A.W.S. (GER-HA) Hansen, Woodbury
Studied character enactment, two hour laboratory.

24. **Voice and Diction.** (3) A.W.S. (GER-HA) Staff

26. **Makeup.** (2) A.W.S. Bowers, Tanner

41. **Introduction to Radio and Television Broadcasting.** (3) A.W.S. Rich, McKinlay
Discussion of scope, influence, current practices, problems, and social implications of the American system of radio and television broadcasting; microphone practice and experience. Two-hour laboratory.

45. **News Writing.** (3) A.S. Staff
(See Journalism 61.)

51. **Radio and Television Studio and Controlling Techniques.** (3) A.W.
Use of radio and TV equipment, sound effects, records, TV lighting and TV staging.

52a, 52b, 52c. **Radio and Television Announcing.** (1-1-1) A.W.S. Rich
Practice in the presentation of all types of radio and television materials.

53. **Beginning Radio and Television Production.** (3) S. McKinlay
Practice in the performance, production and direction of radio and television dramatic and commercial programs.

60. **Practical Phonetics.** (3) A.W.S. deJong
Designed to give a better understanding of diction in English and foreign languages.

Upper Division Courses

100. **Advanced Speech Composition.** (3) A. Prerequisite: Speech 1. Staff
Advanced study and practice in styles of speaking.

101. **Advanced Argument and Debate.** (3) W. Prerequisite: Speech 11. Staff
Analysis of classic debates and practice in argumentative writing and speaking.

102a, 102b, 102c. **Debate Techniques.** (1-1-1) A.W.S. Skousen
Open to members of the Forensics Squad who obtain approval of the Speech Department and the Debate Council. To obtain credit in debating, students must register for this course, with at least two hours of instruction each week.

104p. **Public Speaking.** (1) A.W.S. Staff
Individual instruction. (Fee)

107. **Parliamentary Procedures.** (2) S. Bateman
The rules governing organizations and legislative bodies.

112. **Introduction to the Theatre.** (5) A.W.S. (GER-HA) Staff
The course will introduce students to the fundamental theories of theatre arts so as to develop a discriminating appreciation and to provide a basic background for those interested in theatre.

122. **Intermediate Acting.** (3) A.W. Prerequisite: Speech 23 or consent of instructor. Two-hour laboratory. Hansen

123. Advanced Acting. (3) S. Prerequisite: Consent of instructor. Two-hour laboratory. Hansen

124, 125, 126. **Theatre History.** (3-3-3) A.W.S. (GER-HA) Woodbury, Hansen

127p. **Dramatic Technique.** (2) A.W.S. Staff

141. Radio News Writing. (3) A. Prerequisite: Speech 45. Staff
(See Journalism 141.)

146, 147, 148. Radio News Workshop. (2-2-2) A.W.S. Staff
(See Journalism 146, 147, 148.)

149. Radio and Television Advertising. (5) W. Staff
(See Journalism 149.)

150. Commercial Writing for Radio and Television. (5) S. Staff
(See Journalism 150.)

151, 152, 153. Advanced Radio Workshop. (1-1-1) A.W.S. Prerequisite: consent of the instructor. Rich

Experience in planning and producing radio programs for off-campus stations.

154. Radio and Television Programs and Audiences. (5) A. Rich

Analysis and extensive observation of basic program forms used in radio and television; requirements of an effective program structure; consideration of the audience situation.

155. Radio and Television Law and Program Planning. (5) W. McKinlay

Discussion of the influence that public attitudes and the decisions of regulatory bodies have had on basic program standards and practice in planning radio and television programs consistent with these standards. Students who have had Speech 144 may not receive credit for this class.

156. Radio and Television Program Writing. (5) S. Prerequisite: Speech 154. McKinlay

Practice in the writing of various types of low cost radio and television programs.

157, 158, 159. Television Workshop. (2-2-2) A.W.S. Prerequisites: Speech 154 and consent of instructor. Rich, McKinlay

Practice in the production and direction of television programs for release over commercial stations.

160. Directing. (3) A.W.S. Prerequisite: consent of instructor. Staff

For advanced students only.

161a, 161b, 161c. Stage Craft. (1-3) A.W.S. Struthers

College and workshop productions in laboratories. Students may register for one to three hours each quarter with a maximum of nine hours.

162. Senior Seminar. (3) S. Required of all seniors. Hansen, Staff

163. Technique of Playwriting. (3) A. Hansen

165. Historic Costume. (3) W. Staff

167. Religious Drama. (2) A.W.S. Hansen
(See Church Administration 184.)

172. Advanced Interpretation. (3) S. (GER-HA) Woodbury

179. Speech Science. (4) W. Staff

A study of the aspects, physics, physiology, phonetics and experimental phonetics underlying the speech process.

180. Introduction to Speech Correction. (5) A.W.S. Prerequisite: Speech 24. Morley

The causes, symptoms, and treatment of various types of abnormal speech.

182. Introduction to Aural Rehabilitation. (3) W. Prerequisite: Speech 180. Jex

183. Lip Reading. (2) S. Prerequisite: Speech 182. Jex

The teaching of lip reading to children and adults.

185. Stuttering. (3) A. Morley

A study of the theories of cause and manifestations of stuttering.

186. Organic Speech Disorders. (3) W. Mecham

Speech Education

118. Speech Education: Practice Teaching in Correction of Speech and Hearing Disorders in the Public Schools. (6) A.W.S. Prerequisites: Education Instruction 118 and completion of a minimum of 150 hours in clinical practicum in Speech Education 195a, 195b or 195c. Jex

Supervised teaching in a public elementary school for a full quarter on a half-day basis. A qualified student clinician registering for this course will be placed in a public school district where there is a practicing public school speech and hearing correctionist. The student teacher will get experience in diagnosis and therapy with children having speech and hearing disorders. Student teachers will participate in weekly seminars and personal conferences with their supervisors. The nature of this course dictates that students must limit their load to 15 quarter hours. A special fee of $10 is charged to equalize the cost of travel for student teachers regardless of location of cooperating public schools.

120. Speech Education: Basic Classroom Procedures in Secondary Instruction. (4) A.W. Prerequisites: ERS 103 and 100. Lectures, demonstrations, observations. Clinger

A basic course concerned with materials, procedures, and techniques which give experience in providing effective learning activities for secondary school students.

138. Speech Education: Secondary Curriculum and Participation. (4) A.W. Prerequisite: Speech Education 120. Lectures, conferences, and participation at the B.Y. High School in non-instructional activities. Clinger

Concerned with the development of techniques of providing continuous well-organized learning experiences for secondary school pupils. Emphasis will be placed on materials and procedures applicable in the teaching of subjects within the student's area of specialization. Fees: A special fee of $20 (pro-rated over the two quarters in which the student is registered for Speech Education 138 and 139 at

$10 per quarter) is charged to equalize the cost of travel for all students teachers regardless of location of cooperating public schools.

139. Speech Education: Secondary Student Teaching. (6) A.W.S. Prerequisites: Speech Education 138 and completion of two-thirds of courses required for teaching major and minor or composite major. Clinger

Supervised teaching in a public secondary school for a full quarter on a half-day basis. Close contact with faculty and students, participation in co-curricular activities and much responsible teaching are expected. Student teachers will participate in weekly seminars and periodic conferences with supervisors. The nature of this course dictates that students must limit their total load to 15 quarter hours. (For explanation of fees see Speech Education 138.)

171. Speech Education: Speech in the Elementary Schools. (3) W. S. Jex

Objectives and methods of developing good speech habits in children. Recognition and management of minor speech problems.

190. Speech Education: Clinical Methods in Correction of Functional Disorders of Speech. (2) W. Prerequisite: Speech 180. Jex

Diagnosis and treatment methodology.

191. Speech Education: Clinical Methods in Correction of Organic Speech Disorders. (2) S. Prerequisite:Speech 180. Mecham

Diagnosis and treatment methodology.

192. Speech Education: Clinical Methods of Teaching Speech to the Deaf and Hard of Hearing. (2) S. Staff

195a, 195b, 195c. Speech Education: Clinical Practice in Speech Correction. (2) A.W.S. Prerequisites: Speech 180, 190, or 191. Jex

Supervised practice in handling of various types of speech and hearing disorders.

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201. Ancient Rhetoric and Oratory. (3) A. Staff

202. History of British Public Speaking. (3) W. Staff

203. American Oratory and Public Address. (3) S. Staff

210. Seminar in Public Speaking. (2-4) Arr. Staff

215. Regional Dialects. (3) S. Prerequisites: Speech 60, 61, or 62. Clinger

225, 226, 227. History of the Theatre. (3-3-3) A.W.S. Hansen, Woodbury

228. Stage Design. (3) Arr. May be repeated to a total of nine hours. Staff

229. Playwriting. (3) Arr. May be repeated to a total of nine hours. Hansen

230. Seminar in Interpretation. (1-4) Arr. Gledhill, Woodbury

232. Experimental Theatre. (2-4) Arr. Hansen

234. Projects in Theatre. (2-4) Arr. Woodbury, Hansen, Clinger, Gledhill

235. Theory of Interpretation. (3) Arr. Gledhill, Woodbury

236. Oral Interpretation of Classic Literature. (3) Arr. Hansen, Clinger, Gledhill, Woodbury

237. Program Building and Lecture Recital. (3) Arr. Gledhill, Woodbury

238. Seminar in Arena Theatre. (2-4) Arr. May be repeated to a total of nine hours. Hansen

240. Stage Lighting. (1-3) Arr. Tanner

241. Research Methods in Mass Communications. (3) A. Smith, Rich, McKinlay

242. Mass Communications and Society. (4) W. Staff

243. History of Radio and Television Programming. (3) S. Staff

249. Selected Readings in Radio and Television. (2-4) A.W.S. Staff

250. Seminar in Mass Communications. (2-4) A.W.S. Staff

252. Radio and Television Projects. (2-4) A.W.S. Staff

264. Advanced Play Production. (3) A.W.S. Hansen

281a, 281b, 281c. Graduate Practicum in Correction of Speech and Hearing Problems. (1-3) A.W.S. Jex, Staff

282a. Advanced Studies in Stuttering. (1-3) A.W.S. Prerequisite: Speech 185. Morley

282b. Advanced Studies in Cleft Palate. (1-3) A.W.S. Prerequisite: Speech 186. Mecham

282c. Advanced Studies in Cerebral Palsy. (1-3) A.W.S. Prerequisite: Speech 186 Mecham

282d. Advanced Studies in Aphasia. (1-3) A.W.S. Prerequisite: Speech 186. Morley

(Only two courses of the above series will be taught in any one quarter.)

283. Advanced Audiology. (3) Arr. Prerequisite: Speech 184. Jex, Staff

284. Public School Audiometry. (3) A. Prerequisite: Speech 182. Jex, Staff

286. Anatomy of Ear and Vocal Organs. (3) W. Morley

287. Psychology of Speech. (3) S. Prerequisite: Psychology 11. Morley

288. Seminar in Psychopyhsics of Speech. (1-3) Arr. Staff

289. Methods and Problems of Research in Speech. (2) Arr. Staff

290. Problems of the Producing Director. (3) Arr. Hansen,

292. History of Acting. (3) (Arr.) Woodbury

Styles and theories.

294. Special Problems in Theater History. (1-5) May be repeated up to a total of 5 hours. Staff

300. Thesis for Master's Degree. Staff

Textiles

(See courses in Clothing and Textiles.)

Theology and Religious Philosophy

(See courses in Religion.)

Zoology and Entomology

Professors: Cottam*, Hayward, V. M. Tanner (chairman, 64B).
Associate Professors: D. E. Beck, H. J. Nicholes.
Assistant Professors: A. L. Allen, W. W. Tanner.

The following course of study is for students who wish to major in zoology and entomology and prepare for post-graduate or professional work. Any deviation from this outline should be discussed with and approved by the chairman of the department. Forty-two hours of zoology and entomology credit are required of major students in this program.

First Year	A.	W.	S.
English 1, 2, 3 or	3	3	3
12, 13		3	3
Religion	2	2	2
Phys. Ed.	1	1	1
Health		1	
Zoology 11		5	
Chemistry 7, 8, 9 or 14, 15, 16	5	5	5
Math. 11 or 12	5		
Geology 11			5
Electives	2	1	2
Total hours	18	18	18

Second Year	A.	W.	S.
Physics 31, 32, 33	5	5	5
Religion	2	2	2
Zoology 12, 13	5	5	
Entomology 30	5		
History 70			5
Botany 1		5	
Entomology 132			5
Electives	1	1	1
Total hours	18	18	18

Third Year	A.	W.	S.
English (Lit) 157		3	
Zoology 146			5
Botany 2, 3		4	5
Religion (upper div.)	2	2	2
Geology 12	5		
Language	5	5	5
Zoology 18		3	
Psychology 11	5		
Electives	1	1	1
Total hours	18	18	18

Fourth Year	A.	W.	S.
English 156	3		
Religion (upper div)	2	2	2
Bacteriology 21	4		
Zoology 175		2	
Zoology 182, 183	1	1	
Zoology 165 or 166		5or5	
Zoology 173		5	
Botany 150			5
Economics or Sociology	5		
History 166			3
Electives	3	3	8
Total hours	18	18	18

Students who desire to prepare to teach biology are advised to take the following courses in the sequence outlined below. Those majoring in this program must present forty hours of zoology and entomology credit.

First Year	A.	W.	S.
English 1, 2, 3	3	3	3
Religion	2	2	2
Zoology 11, 12	5	5	
Chemistry 7, 8 or 14, 15	5	5	
Math 11 or 12			5
Botany 1			5
Phys Ed.	1	1	1
Health		1	
Electives	2	1	2
Total hours	18	18	18

Second Year	A.	W.	S.
Zoology 13 or 45	5		
Entomology 30	5		
Religion	2	2	2
Ed. Inst. 170		3	
Ed. Res. & Ser. 103		3	
Zoology 18		3	
Entomology 132			5
Psychology 11			5
Physics 31, 32, 33	5	5	5
Electives	1	2	1
Total hours	18	18	18

Third Year	A.	W.	S.
Religion (upper div)	2	2	2
Botany 3			5
Bacteriology 21	4		
Ed. Inst. 120		4	
Ed. Res & Ser. 100	4		
Ed. Inst. 138			4
Zoology 182, 183	1	1	
English 61	2		
Zoology 157 or 158			3
Geology 1, 12	5	5	
History 166		3	
Electives		3	4
Total hours	18	18	18

Fourth Year	A.	W.	S.
Religion	2	2	2
Ed. Inst. 139	6		
Zoology 159 or 160		3	
Zoology 175		2	
Zoology 171		2	
Botany 150	5		
Botany 140		5	
Botany 2		4	
Ed. Values & Prog. 100	3		
Ed. Inst. 185			3
Ed. Adm. 100			3
Sociology 11			5
History 70			5
English 71	2		
Total hours	18	18	18

Zoology

Lower Division Courses

11. **General Zoology.** (5) A.W.S. (GER-BS) Three lectures, two two-hour laboratory periods per week. Beck, W. Tanner, Allen

11b. **General Zoology.** (5) (GER-BS) Staff
For Nursing and Physical Therapy students.

12. **Invertebrate Zoology.** (5) A.W.S. Two lectures. three two-hour laboratory periods per week. Prerequisite: Zoology 11. Beck

13. **Comparative Anatomy.** (5) A.W.S. Two lectures, three two-hour laboratory periods per week. Prerequisite: Zoology 11. Hayward

18. **Survey Course in Heredity.** (3) A.W.S. (†GER-BS) Prerequisite: Zoology 11 or Botany 1. W. Tanner
(See Botany 18.)

45. **Vertebrate Anatomy and Physiology.** (5) A.W.S. (†GER-BS) Three lectures, two two-hour laboratory periods per week. Does not fulfill pre-medical requirements. Prerequisite: Zoology 11. Nicholes

48. **Elementary Human Physiology.** (5) (GER-BS) Staff
Open only to students in the College of Family Living.

51. **Human Physiology.** (4) A. Two lectures and two two-hour laboratory periods per week. Prerequisites: Zoology 11 and consent of instructor. Nicholes

Upper Division Courses

128. **Aquatic Zoology.** (3) S. Two lectures and one two-hour laboratory period per week. Prerequisites: Entomology 30 and Zoology 12. V. M. Tanner

129. **Genetics.** (5) A. Three lectures, two two-hour laboratory periods per week. Prerequisite: Zoology 18 or Botany 18. Allen

146. **Principles of Ecology and Bio-geography.** (5) S. (†GER-BS) Prerequisites: Zoology 11, Botany 3. Several Saturday field trips. Hayward

157. **Mammalogy.** (3) A. One lecture, two two-hour laboratory periods per week. Saturday field trips. Prerequisite: Zoology 11. Hayward

158. **Ornithology.** (3) S. One lecture and two two-hour laboratory periods per week. Saturday field trips. Prerequisite: Zoology 11. Cottam

159. **Ichthyology.** (3) W. One lecture, two two-hour laboratory periods. Prerequisite: Zoology 11. V. M. Tanner

160. **Herpetology.** (3) S. One lecture, two two-hour laboratory periods. Saturday field trips. Prerequisite: Zoology 11. W. Tanner

165. **General Physiology.** (5) W. Prerequisite: Zoology 11. Organic Chemistry recommended. Nicholes

166. **Human Anatomy and Physiology.** (5) S. Prerequisites: Zoology 13, 170, 173. Nicholes

170. **Vertebrate Histology.** (3) S. One lecture, two two-hour laboratory periods. Prerequisites: Zoology 11 and 13. Hayward

171. **Histological Technique.** (2) W. Two two-hour laboratory periods per week. Prerequisites: Zoology 11; 170 recommended. Hayward

173. Vertebrate Embryology. (5) W. Two lectures, three two-hour laboratory periods per week. Prerequisite: Zoology 13. Allen

174. Parasitology. (4) W. Two lectures, two two-hour laboratory periods. Prerequisite: Zoology 11. W. Tanner

175. History of Biology. (2) W. V. M. Tanner

178. Experimental Embryology. (4) S. Prerequisite: Zoology 173. Allen

182, 183. Senior Year Seminar. (1-1) A.W. Required of all majors in this department. Staff

186. Natural History of the Local Invertebrate Fauna, Exclusive of the Insects. (3) S. One lecture, two two-hour laboratory periods. Prerequisites: Zoology 11, 12, and Entomology 30. Beck

191, 192, 193. Field Zoology. (3-3-3) A.W.S. Staff

Open only to students prepared to carry advanced zoological work.

197. Natural and Human Resources. (3) W. (GER-BS) V. M. Tanner

(See Botany 166.)

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

210, 211, 212. Research in Ichthyology. (3-3-3) A.W.S. V. M. Tanner

213. Natural History of the Amphibians and Reptiles. (3) S. Prerequisite: Zoology 160. W. Tanner

216, 217, 218. Research in Herpetology. (3-3-3) A.W.S. Prerequisite: Zoology 160. W. Tanner

219. Geographical Distribution of the Cold-Blooded Vertebrates. (2) A. V. M. Tanner

223, 224, 225. Research in Ornithology or Mammalogy. (3-5) A.W.S. Prerequisites: Zoology 157, 158 or equivalent. Cottam, Hayward

227. Research in Genetics. (3) A.W.S. Allen

232. Research in Embryology. (3) A.W.S. Allen

237. Radiation Biology. (3) S. Allen

238. **Advanced Embryology.** (3) A. Prerequisite: Zoology 173. Allen

239. **Advanced Genetics.** (3) W. Prerequisite: Zoology 129 Allen

241. **Advanced Ecology.** (3-5) A.S. Prerequisite: Zoology 146 or equivalent and a good background in botany. Hayward

255, 256, 257. **Distributional Study of Parasitic Arthropods.** (3-3-3) A.W.S. Prerequisites: Zoology 11, 12, 146, 157, and Entomology 30. Beck

265, 266. **Research in Invertebrate Zoology.** (Arr.) A.S. Beck

267. **Human Anatomy and Physiology.** (2-6) Nicholes

269. **Endocrinology.** (3) S. Prerequisite: Zoology 45 or 165. Nicholes

298. **Seminar.** (1) A. Staff

299. **Seminar.** (1) W. Staff

300. **Thesis for Master's Degree.** Staff

Entomology

Lower Division Course

30. **Introductory Entomology.** (5) A. (GER-BS) Three lectures, two two-hour laboratory periods per week. V. M. Tanner

Upper Division Courses

132. **Insect Classification.** (5) S. Two lectures, three two-hour laboratory periods. Prerequisite: Entomology 30. V. M. Tanner

133. **Medical Entomology.** (4) S. Two lectures, two two-hour laboratory periods. Prerequisite: Entomology 30. Beck

134. **Economic Entomology.** (3) S. Two lectures, one two-hour laboratory and field period. V. M. Tanner

194. **Principles of Nomenclature.** (1) W. V. M. Tanner

Graduate Courses

For regulations governing study beyond the bachelor's degree, see the Graduate Catalog. The following courses carry only graduate credit. A graduate course may be used by an advanced undergraduate in his baccalaureate program if he secures the permission of the instructor prior to registration and meets the same requirements made of the graduate students.

201. **Insect Physiology.** (3) A. V. M. Tanner

202. **Systematic Entomology.** (3) W. V. M. Tanner

203. Field Entomology. (3) S. V. M. Tanner

204. Insect Morphology. (3) A. V. M. Tanner

205. Study of Insect Genitalia. (3) W. V. M. Tanner

206. Insect Literature and Nomenclature. (3) S. V. M. Tanner

207. Insect Embryology. (2) A. V. M. Tanner

208. History of Entomology. (2) W. V. M. Tanner

300. Thesis for Master's Degree. V. M. Tanner

(Not more than six hours of credit granted for thesis.)

Colleges, Schools, Divisions

In Provo:

- College of Biological and Agricultural Sciences
- College of Commerce
- College of Education
- College of Family Living
- College of Fine Arts
- College of Humanities and Social Sciences
- College of Physical and Engineering Sciences
- College of Recreation, Physical and Health Education, and Athletics

- Graduate School
- School of Nursing

- Division of Religion
- Extension Division

In Salt Lake City:

- L.D.S. Business College
- McCune School of Music and Art

College of Biological and Agricultural Sciences

Raymond B. Farnsworth, Acting Dean (110B)

The following departments are in the College of Biological and Agricultural Sciences:

Agricultural Economics
Agronomy
Animal Husbandry
Bacteriology
Botany
Horticulture and Horticultural Specialties
Industrial Arts and Drawing
Zoology and Entomology

Biological Division. The following departments are included in the biological division of this college: Bacteriology, Botany, Zoology and Entomology.

The biological division of the College enables the student to study and to understand more fully the plant and animal world. Preparation for teaching and research is emphasized.

Students who are interested in medical technology, medicine, dentistry, and veterinary science, can receive their pre-training in the biological division of this college. Students desiring to register in these fields should make use of the guides offered.

Agricultural Division. The following departments are included in the agricultural division of this college: Agricultural Economics, Agronomy, Animal Husbandry, Horticulture and Horticultural Specialities, Industrial Arts.

The agricultural division provides instruction in the principles and technical operations pertaining to the farm, the shop, the trades, and industries. The students are prepared not only to satisfy the practical needs of the community, but they are also trained to become specialists in the fields of agricultural science, for laboratories and also for teaching on all educational levels. Capable leadership and efficient service in the phase of work they choose are emphasized.

MEDICAL TECHNOLOGY

(Clinical Laboratory; Radiology)

Advisor: David M. Donaldsen

Through a cooperative agreement with various hospitals, the Brigham Young University has made provision for training medical technologists. The curricula are designed to prepare students for careers in either the clinical laboratory or the radiological laboratory. The course indicated in the following outline consists of a three-year period of residence study at the Brigham Young University campus and one year of practical hospital internship.

During the fourth year (internship), the student will register and pay tuition. After satisfactory completion of the internship, the student is eligible to receive a Bachelor of Science Degree.

Recommended Curriculum for Majors in Medical Technology

First Year

	A	W	S
Chemistry 7, 8, 9	5	5	5
Mathematics 1, 11, 12	5	5	5
English 1, 2, 3	3	3	3
Phys. Ed.	1	1	1
Religion	2	2	2
Health 1			1
Total Hours	16	16	17

Second Year

	A	W	S
Bacteriology 101, 181, 182	5	5	5
Chemistry 110	5		
Zoology 11, 45		5	5
Religion	2	2	2
History 70			5
Literature (Electives)		4	
Social Sciences (Electives)	5		
Total Hours	17	16	17

Third Year

	A	W	S
Bacteriology 183	5		
Chemistry 21, 22	3	3	
Zoology 171		2	
Zoology 174		4	
Religion (Humanities)	3	3	3
Bacteriology 196	1	1	1
Literature (Elec.)			2
Social Sciences (Electives)			5
Elective			5
Physics 31, 32	5	5	
Total Hours	17	18	16

Fourth Year

	A	W	S
Hospital Laboratory Internship	15	15	15

PRE-DENTAL COURSE

Advisory Committee: A. Lester Allen (chairman),

Albert D. Swenson, Max M. Nicholes

A student is not permitted to major in Pre-Dentistry. It is strongly recommended that he select course work that will lead to the bachelor's degree in Zoology, Bacteriology, Chemistry, Sociology, or Psychology. This will give him the broad background desired by the dental schools and will also prepare him to enter an alternative field in the event he is not admitted to dental school.

Ninety quarter hours of work, including the following courses, will satisfy the minimum requirements of most dental schools. The student is advised to consult dental school catalogs to make sure that specific requirements of the schools of his choice are met. Such requirements may be somewhat more or less than those suggested below.

English 1, 2, 3
Mathematics 1, 11, 12
Physics 31, 32, 33
Zoology 11, 12, 13
Chemistry 14, 15, 16, 21 and 22 or 31, 151, 152, 153

The remaining units should be completed in General Education and couurse work leading to the bachelor's degree.

PRE-MEDICAL COURSE

Advisory Committee: A. Lester Allen (chairman),
Albert D. Swenson, Max M. Nicholes

A student is not permitted to major in Pre-Medicine. It is strongly recommended that he select course work that will lead to the bachelor's degree in Zoology, Bacteriology, Chemistry, Sociology, or Psychology. This will give him the broad background desired by the medical schools and will also prepare him to enter an alternative field in the event he is not admitted to medical school.

Three years of work, including the following courses, will satisfy the minimum requirements of most medical schools, although preference is usually given to college graduates. The student is advised to consult medical school catalogs to make sure that specific requirements of the schools of his choice are met. Such requirements may be somewhat more or less than those suggested below.

English 1, 2, 3
French or German 1, 2, 3 (reading knowledge)
Mathematics 1, 11, 12
Zoology 11, 12, 13, 173
Chemistry 14, 15, 16, 21 and 22 or 31, 151, 152, 153.

The remaining units should be completed in General Education and course work leading to the bachelor's degree.

PRE-OPTOMETRY COURSE

Chairman: A. Lester Allen

The admission requirements to Optometry School vary from two to four years of College work. Prospective students should consult with the chairman of the Pre-optometry committee for specific details.

PRE-OSTEOPATHY COURSE

Chairman: A. Lester Allen

Students intending to apply for admission to Osteopathic School should follow the outline given under Pre-Medicine.

PRE-PHARMACY COURSE

Chairman: A. Lester Allen

The first year of the curriculum of the Pharmacy School may be completed at this campus. For specific details the student should consult the chairman of the Pre-pharmacy committee.

PRE-VETERINARY COURSE

Advisory committee: A. Lester Allen, (chairman),
Albert D. Swenson, Max M. Nicholes

The following pre-veterinary course is based on a minimum of two years of college training. It will fill the entrance requirements of most of the veterinary schools in the United States. However the student is strongly urged to take 3 or 4 years of pre-veterinarian training and include some work in animal husbandry. Additional courses in mathematics and a course in bio-chemistry are also suggested. The student is advised, however, to consult the catalogs of schools of his choice for special requirements that may affect him.

Freshman Year	A.	W.	S.
English 1, 2, 3	3	3	3
Religion	2	2	2
Chemistry 14, 15, 16	5	5	5
Mathematics 1 or 11	5	..	..
Botany 1	..	5	..
Zoology 11	..	..	5
Phys Ed. 1, 2, 3	1	1	1
Total Hours	16	16	16

Sophomore Year	A.	W.	S.
Religion	2	2	2
Zoology 13	5	..	..
Chemistry 151, 152	4	4	..
Physics 31, 32	5	5	..
Elective in social science	..	5	10
Elective in English or fine arts	..	..	5
Total Hours	16	16	17

College of Commerce

William F. Edwards, Dean
Herald R. Clark, Assisting Dean (30A-N)

The following departments are in the College of Commerce:

Accounting
Business Education and Office Management
Economics
Finance and Banking
Industrial Management
Marketing

In order that all students who plan to graduate with a major in any of the departments in the College of Commerce (except Business Education majors) may benefit from a common background of basic information and tools to facilitate their advanced work, they are required to take the core courses listed below. These courses form a basic training normally to be completed during the first two years of college work and before the student undertakes upper division work in his major department.

Accounting 1, 2, and 35	15 hours
Economics 1 and 75	10 hours
Psychology 11 or substitute approved by counselor	5 hours

The courses in economics and psychology listed above apply toward the University general education requirement in social science.

The purpose of the College of Commerce is to provide training which will enable students to make an effective contribution to the stability and abundance of our economy and thereby to acquire economic self-reliance and personal satisfaction. Because of the constant and progressive changes that are taking place in our society. and because of the dynamic characteristics of business organization and operation, success in business requires both technical competence and a high degree of adaptability. For this reason the training provided in all departments of the College gives emphasis to the social, human, and technical aspects of the business and economic environment. In order to provide an understanding of the functions of business, the institutional framework for their accomplishment, the language and technical skills utilized and above all the inter-relatedness of the several activities of business endeavor, all departments require course work in the following subject areas: Marketing, Production, Finance, Accounting and Control, Law, and Economic Theory.

The program is directed toward the achievement of the following specific objectives:

(1) Developing an understanding and appreciation of the human characteristics and social aspects of business, as they are related to the individual, the firm, and the community.

(2) Training in the use and understanding of the tools and information used in measuring, analyzing, and controlling business operations and economic change.

(3) Developing in the student a capacity to determine what information is relevant to the accurate solution of a business problem and to analyze, organize, and present the solution of the problem in an effective manner.

(4) Helping the student to acquire the capacity to communicate ideas orally and in writing.

The degrees of Bachelor of Arts and Bachelor of Science are given to graduates of this college.

PRE-GRADUATE BUSINESS PROGRAM

All students planning to secure a degree at a graduate school of business may register for a pre-graduate business program administered by the College of Commerce. Early contact (preferably in the freshman or sophomore year) should be made with the dean, who will advise students concerning their work.

College of Education

Asahel D. Woodruff, Dean (118 McKay)

The following departments are in the College of Education:

Educational Administration
Educational Values and Programs
Instruction
Educational Research and Services

The College of Education has as its principal function the educating of teachers, counselors, school librarians, principals, supervisors, superintendents, and other professional workers in education.

High School Teaching. Students who plan to prepare themselves for a career in high school teaching and related activities may do so either by registering within the College of Education or by registering in one of the other colleges of the University. In the latter case, the student must complete the required professional education courses and the necessary subject-matter and other courses for the teaching certificate under the joint direction of an advisor in the College of Education and an advisor in his major College.

Elementary School Teaching. Those who are interested in elementary school teaching and who desire to register for major study outside of the College of Education should inquire of the Coordinator of Elementary Education in the Department of Instruction concerning the possibilities.

Teaching as a Second Career. Students who are preparing for careers in fields other than teaching may provide themselves with a second possibility for employment by meeting the requirements for certification as a teacher while they are completing the other preparation. By planning early in one's career, one may do this within the usual scope of the baccalaureate program and with little or no interference with the major program. It should be noted that at present this is particularly feasible for high school teaching, where depth of preparation in two or three subject-matter fields is desired, but also may be possible under special arrangements in the elementary school program.

Early Decisions Desirable. In either case, the student is urged to make the decision as early as possible in his college career to avoid conflicts in the scheduling of courses and to take fullest advantage of the maturing effect produced by spacing the study of teaching over a period of several quarters rather than concentrating it in two or three quarters.

How to Proceed. Those who decide to register in the College of Education should transfer to that College at once. All others will register in the Colleges in which they are majoring. All those who wish to qualify for elementary teaching should obtain information from the Chief Information and Records Clerk, room 146 McKay, as to the early planning of their programs. Those who wish to qualify for secondary teaching should register for the course "Development and Learning," (Ed. R & S 101). This may be done during the fifth, sixth, or seventh quarter of college work. In this course the student will be given full information and guidance on the planning of the rest of his program.

Each student who undertakes preparation for teaching will be provided with a brochure which describes the requirements and procedures, and in which he will be expected to keep a record of his program and his progress.

How to Become Certified. Students who complete the certification requirements set forth in the College of Education, regardless of the college in which they are majoring, are eligible for certificates issued by the Utah State Board of Education. Certification is received from that Board, after application for certification has been made through the Dean of the College of Education, who in turn recommends the students to the State Board. All students who have met the requirements of the State and the University are recommended. Applications will be furnished routinely to all who are successfully completing the requirements near the end of the program.

A student may prepare himself to be certified as any of the following:

Teacher in Elementary Schools
Teacher in Kindergarten
Teacher in Secondary Schools
Teacher of Special Classes for Handicapped Children
Teacher of Vocational Homemaking in Secondary Schools
Teacher of Industrial Arts in Secondary Schools
Librarian in Elementary Schools
Librarian in Secondary Schools
Counselor
Administrator-Supervisor in Elementary Schools
Administrator-Supervisor in Secondary Schools
Superintendent
Teacher of Unit Shops in Industrial Arts
Teacher of Trade and Industrial Education Day Trade Courses
Supervisor of Trade and Industrial Education
Local Director of Trade and Industrial Education
Teacher and Teacher-Coordinator of Distributive Education
Local Supervisor of Distributive Education

Certification Requirements. Certification of teachers is a function of the Utah State Board of Education. The Board of Education publishes requirements for certification in booklet form and in supplements. The present policy of the Board is one of stating minimum requirements in general terms. This is done for the purpose of encouraging the institutions that prepare teachers to engage in continuous study of the requirements, going beyond the minima in whatever ways seem desirable. While the Board is always able to certify a candidate without recommendation from a University, it chooses to require the recommendation of the officer in charge of teacher preparation in each institution. This requirement is of assistance not only to the State Board, but also the institution because of the assurance that its efforts to improve the program of preparation will not be vitiated by the ready availability of ways of going around its minimum requirements.

Alterations in the requirements may be made from time to time. They will not be made retroactive in the case of any student, but may be made to apply to uncompleted portions of his program, where this can be done without difficulty.

Selection of Candidates. Candidates for certification as teachers should expect to be carefully selected, even though their interest in certification is secondary to another career at the time. Only those who are individuals of high capacity, who have acquired a substantial general education, whose mastery of their major and minor fields is unquestioned, and whose personal characteristics reflect the best ideals of our culture will finally be recommended for certification.

The selection of those who will finally be recommended for certification is a continuous process. It begins when the student first announces his intention of seeking certification. It continues informally through the early stages of his preparation.

SUBJECT MATTER PREPARATION OF SECONDARY SCHOOL TEACHERS

A. Developing Composite Majors For Secondary School Teachers

The University offers two approaches to certification. One consists of the traditional teaching major and teaching minor. The other consists of a composite major.

For guidance in selecting and completing a composite major, students may consult with the Coordinator of Secondary Instruction, whose responsibility it is, under cooperative advisement with the academic departments, to administer the composite majors which cut across two or more departments. Prospective secondary teachers may use the approved composite teaching majors of sixty or more hours as degree majors in the College of Education along with the professional major.

A composite major in three related fields will consist of: (1) a dominant subject in which a minimum of 24 hours will be required; (2) a related subject with a minimum of 18 hours required; (3) another related subject with a minimum of 18 hours required.

A composite major developed in two related fields will consist of: (1) a dominant subject in which the course work will amount to a minimum of 36-45 hours; (2) a related subject in which the course work will amount to a minimum of 24 hours.

In the following lists of course, the 24 hours of credit in any given subject may be selected either as the dominant subject in a composite of three fields, or as the related subject in a composite of two fields.

Many combinations may be selected from the fields described below. Early consultation with the Coordinator of Secondary Instruction is recommended to assure students that their preparation is directed toward the greatest needs of he schools to be served.

Any variation from the following 18, 24, or 36-45 hour lists must be justified in writing by the Department Chairman concerned.

COMPOSITE MAJORS IN AGRICULTURE

(Several combinations are possible. See descriptions above.)

Agronomy:

18-hour list: 41, 51, with electives to be chosen in consultation with the Chairman of the Agronomy Department from 60, 62, 102, 105, 151.

24-hour list: 41, 51, 62, with electives to be chosen in consultation with the Chairman of the Agronomy Department from 60, 102, 105, 107, 114, 151, 155.

37-hour list: 41, 51, 60, 62, 105, with electives to be chosen in consultation with the Chairman of the Agronomy Department from 101, 102, 107, 1144, 155, 159, 173.

Animal Husbandry:

18-hour list: 1, 7, 15, 32.

24-28 hour list: 1, 7, 15, 32, and two courses selected from 21, 90, 111, 112, 154, 155, 156, 190.

38-40 hour list: 1, 7, 15, 32, and 20-22 hours selected from 21, 90, 111, 112, 154, 155, 156, 190, 194.

Horticulture:

18-hour list: 1, 3, 7, 102, 159; choice of an additional 3 hours.

COMPOSITE MAJORS IN BIOLOGICAL SCIENCE

(Several combinations are possible. See descriptions above.)

Botany:

24 hour list: Botany 1, 2, 3, and ten additional hours selected from Botany 10, 18, 140, 150, 166, and Bacteriology 21.

45 hour list: Botany 1, 3, 10, 101, 102, 103, 106, 140, 150, 155, 180, 181, 183, 184. Bacteriology 21.
Botany 18, 95, and 166 recommended.

Zoology and Entomology:

24 hour list: Zoology 11, 18, 45, 175, 182, 183, one additional class; Entomology 30.

36 hour list: Zoology 11, 12, 13 or 45, 18, 132, 157 or 158, 159 or 160, 175, 182, 183; Entomology 30.

COMPOSITE MAJORS IN ACCOUNTING AND OFFICE MANAGEMENT

(Several combinations are possible. See descriptions above.)

Accounting:

18-hour list: 1 and 2; eight hours chosen in consultation with the Chairman of the Accounting Department from 26, 35, 85, 125, 150.

24-hour list: 1 and 2; 14 hours chosen in consultation with the Chairman of the Accounting Department from 26, 35, 85, 125, 150, 151, 152.

36-hour list: 1, 2, 85, 150, 152; eight hours chosen in consultation with the Chairman of the Accounting Department from Accounting 26, 35, 125, Finance and Banking 151, 153, 154.

Economics:

18 hour list: Economics 1, 74, 161, and 5 additional hours in Economics.

24 hour list: Economics 1, 74, 161, 145, and 6 additional hours in Economics.

36 hour list: Economics 1, 74, 161, 167, 145, 246, 249 or Marketing 107, and 3 additional hours in Economics.

Note: Economics 74 and Pol. Sci. 10 fill the American History and Government requirement.

Office Management:

24-hour list: Typewriting: 4 hours including Office Management 24* Shorthand: 12 hours including Office Management 151*, Office Management 26, 32, and 154.

45-hour list: Typewriting: 4 hours including Office Management 24*, Shorthand: 12 hours including Office Management 151*, Accounting 1 and 2; Office Management 26, 32, 110, 154, 155, and 160 or Finance and Banking 154.

*Additional courses for the total required credit must be approved by the Chairman of the Department of Office Management.

COMPOSITE MAJOR IN HOMEMAKING EDUCATION

24-26-hour list: Human Development and Family Relationships 40, 80, 115, 150; Economics and Management of the Home 125, 130, 170; Housing and Design 160, 175.

14-18 hour list: Clothing and Textiles 10, 15, 25, 60, 135, 175.

14-18-hour list: Food and Nutrition 10, 105, 120, 140, 150 or equivalent.

(Note: A minimum of 60 hours are required for the composite major. Where the student is still deficient after having followed the course listings outlined above, she should select in consultation with her department chairman sufficient courses from the three areas to bring her total up to the required minimum.)

COMPOSITE MAJOR IN LANGUAGE ARTS

It is considered desirable that the 25-hour list of selected English courses be in all combinations of the composite majors in language arts. The recommended combinations are: English 45 hours, Speech 24 hours; Speech 45 hours, English 25 hours; Journalism 36 hours, English 25 hours; English 45 hours, Journalism 24 hours.

English:

25-hour list: 21, 51, 162; one course from 172, 173, 174, and 175 (174, 175 recommended); 82 and one elective (chosen in consultation with the Chairman of the English Department or a counselor in the Secondary Instruction group) or 182.

36-45 hour list: 21, 51, 162, 195; 161 or 163; 82 or 182; four courses from the following: 171, 172, 173, 174, 175. Two of the following substitutions are allowed: 181 for 171; 152 for 172; 153 for 173; 142 for 173; 154 for 174; 132 for 175.

Speech:

24-hour list: 24 hours selected in consultation with the Chairman of the Speech Department from the following courses: 1, 11, 20, 22, 23, 24, 26, 41, 160; 161a, b, c; 162, 180.

44-hour list: 1, 11, 22, 24, 26, 41, 160; 161a, b, c (6 hours); 162, 180; plus eight hours of electives selected in consultation with the Chairman of the Speech Department.

Journalism:

24 hour list: Journalism 61, 62, 106, 161, 162, 171, 172, 185.

36 hour list: Journalism 61, 62, 105, 106, 161, 162, 171, 172, 185; seven hours from Journalism 1, 26, 121, 179.

COMPOSITE MAJORS IN MATHEMATICS AND PHYSICAL SCIENCES

(Several combinations are possible. See description above.)

Chemistry:

18-hour list: 14, 15, 16, (21 or 31).

24-26 hour list: 14, 15, 16, (21 and 22 or 31), 151.

44-45 hour list: 14, 15, 16, (21 and 22 or 31); 111, 151, 152, 153; (161 and 162 or 181 and 182 or 191 and 192).

(Note: In any of the foregoing Chemistry lists, Chemistry 7 and 8, with a grade of B or better, will be considered equivalent to Chemistry 14 and 15.)

Geology:

18-hour list: 1 and 2; 3, 106, 112, and 110 or 107.

24-hour list: 1 and 2; 3, 106, and 112 plus nine hours of optional Geology courses to be selected in consultation with the Chairman of the Geology Department.

36-hour list: 11, 12, 106, 112, and 128 plus 13 hours of optional Geology courses to be selected in consultation with the Chairman of the Geology Department.

Mathematics:

18 hour list: Mathematics 11, 12, 13, 91.

24 hour list: Mathematics 11, 12, 13, 91, 92.

36 hour list: Mathematics 11, 12, 13, 91, 92, 93, 111, 112, 113, and nine hours selected from the following: 121, 122, 123; 131, 132, 133; 161, 162, 163; 191, 192, 193.

Physics:

18 hour list: Physics 41, 42, 43, 21 or 26.

24 hour list: Physics 41, 42, 43, 121, 122, 123.

36 hour list: Physics 41, 42, 43, 121, 122 and twelve additional hours selected from upper division courses.

COMPOSITE MAJORS IN MUSIC

Students desiring a composite major in music with a dominant area in vocal music must take all courses listed under the heading, "Vocal Music Dominant Area." Students wishing to make instrumental music the dominant emphasis must take all courses listed under the heading, "Instrumental Music Dominant Area."

Instrumental Music Dominant Area:

	hours
L.D.S. Church Organization and Administration 157, 161, 162.	6
Music Education 4, 105, 106	3
Music Education 110, 111, 112 (select two courses not represented by major instrument)	6
Music Education 115, 116, 117	6
Music Education 118	3
Music Education 125, 126	6
Musicology 184, 185	6
Music Theory 21, 22, 23	15
Music Theory 121, 122	10
Music Applied 79-, 80-, 81-p (major instrument)	6
Music Applied, Ensembles (choral)	3
Music Applied, Ensembles (instrumental)	6

Vocal Music Dominant Area:

L.D.S. Church Organization and Administration 157, 161, 162	6
Music Education 110, 111, 112, 115, 116, 117	15
Music Education 118	3
Music Education 125, 126	6
Musicology 184, 185	6
Music Theory 21, 22, 23	15
Music Theory 121, 122	10
Music Applied 79-, 80-, 81-p (voice)	6
Music Applied, Ensembles (choral)	6
Music Applied, Ensembles (instrumental)	3

COMPOSITE MAJOR IN PHYSICAL EDUCATION, RECREATION, AND HEALTH

Physical Education and Recreation:

45-46 hour list for men: Physical Education 51, 52, 53, 54, 55, 56, 80, 88, 89, 101, 102, 103, 104, 130, 133 or 134, 140, 141, 146, 154, and Recreation 131.

45 hour list for women: Physical Education 51, 52, 53, 54, 55, 56, 60, 81a, 81b, 81c, 87, 88, 89, 120 or 121, 130, 140, 141, 146, 154, and Recreation 80 and 131; elect three hours in Physical Education.

Health:

24 hours list: Health 5, 21, 45, 143, 157, 160, 195, and two hours of electives.

(Note: In addition to the above, the following courses are required: Zoology 11, Psychology 11, Physics 1, and a course in Chemistry.)

COMPOSITE MAJORS IN SOCIAL SCIENCE

(Several combinations are possible. See description above.)

The major emphasis of social science in Utah secondary schools is history. Therefore, no combination of courses which omits history will be acceptable. The nineteen hour list for history is a minimum requirement; the twenty-seven hour list is recommended. History 70 should **not** be taken by students in this field; the sequence, History 180, 181, 182, satisfies the graduation requirement in American History and Government.

History:

19 hour list: History 10, 11; 180, 181, 182.

25 hour list: History 10, 11, 166; 180, 181, 182; with an additional course selected in consultation with the History Department.

45 hour list: History 10, 11, 12; 166; 180, 181, 182; with an additional twenty-one hours selected in consultation with the History Department.

Note: A student who has taken History 20 or 21 before deciding on a composite major in social science should consult with the History Department on United States history courses to be taken in lieu of History 180, 181, and 182.

Political Science:

18 hour list: Political Science 10, 11; 12 or 15 (total 15 hours); with an additional course selected in consultation with the Political Science Department.

24 hour list: Political Science 10, 11; 12 or 15; with an additional nine hours selected in consultation with the Political Science Department.

45 hour list: Political Science 10, 11; 12 or 15; 101; with the remaining twenty-seven hours to include at least one course from each of the six upper division areas of Political Science, selected in consultation with the Political Science Department.

Economics:

18 hour list: Economics 1, 74, 161, 167.

24 hour list: Economics 1, 74, 145, 161, 167, plus one course.

36 hour list: Economics 1, 74, 75 or 176, 145, 153, 161, 167, 246.

Note: Economics 74 and Political Science 10 fill the American History and Government requirement.

Geography:

18-hour list: 11, 23, 110, and a minimum of five hours in upper division courses to be chosen in consultation with the Chairman of the Geography Department.

24-hour list: 11, 12, 23, 110, and a minimum of six hours in upper division courses to be chosen in consultation with the Chairman of the Geography Department.

36-hour list: 11, 12, 23, 110, 160, and a minimum of 13 hours in upper division courses to be chosen in consultation with the Chairman of the Geography Department.

Psychology:

18 hour list: Psychology 11, 112, 122, and five hours selected from 115, 116, 120, 130, 139, 140, 143, 145.

24 hour list: Psychology 11, 112, 115, and seven hours selected from 116, 120, 130, 139, 140, 143, 145.

36 hour list: Psychology 11, 113, 115, 116, 122, and six hours selected from 130, 139, 140, 143, 145.

Sociology:

18 hour list: Sociology 11, 12; eight hours from Sociology 110, 114, 124, 128, 136, 152, 156, 160, 170, 172, 176.

24 hour list: Sociology 11, 12, 103 or 104; 182 or 180; eight hours from 110, 114, 124, 128, 136, 152, 156, 160, 170, 172, 176.

40 hour list: Sociology 11, 12, 103, 104, 182, 180, 188 or 189; sixteen hours from Sociology 110, 114, 124, 128, 136, 152, 156, 160, 170, 172, 176.

B. Teaching Major and Teaching Minor

Students who do not elect a composite major may select a teaching major and a teaching minor. The teaching major shall consist of thirty-six to forty-five quarter hours of a subject taught in Utah high schools and approved by the College of Education. At least half of the academic major shall be upper division work. The teaching minor shall consist of not less than twenty-four quarter hours in a subject taught in the secondary schools of Utah. The twenty-four hour groups listed in the foregoing material are the courses approved by the department for the teaching minor. Students must have these or equivalents.

In a few departments where composite majors have not been developed there are listed single-subject teaching majors and teaching minors.

Art Teaching Major, 45 hours:

(Note: A teaching major in Art should include 12 hours in Art 11, 21, and 22 or their equivalents before taking upper division work.)

Art History, 9 hours; Crafts, 8 hours; Advanced Design, 2 hours; Commercial Art, 4 hours; Graphics, 2 hours; Interior Design, 2 hours; Painting, 4 hours; Sculpture, 2 hours.

Art Teaching Minor, 27 hours:

Drawing (lower division), 4 hours; Design (lower division), 4 hours; History of Art, 3 hours; Crafts, 4 hours; Commercial Art, 2 hours; Painting, 4 hours; Sculpture, 2 hours; Interior Design, 2 hours; Graphics, 2 hours.

Music Teaching Major:

Option 1: Instrumental Music Dominant Area, 45 hours:

	hours
L.D.S. Church Organization & Administration 157, 161, 162 (Religion credit, 6 hours)	
*Music Education 110, 111, 112	6
Music Education 115, 116, 117	6
Music Education 125	3
Musicology 184	3
Music Theory 21, 22, 23	15
Music Applied, private instruction (instrumental specialty)	6
**Music Applied, Ensemble (instrumental)	6

*The student takes only the two primary workshops not represented by his instrumental specialty.

**Band instrumentalists are expected to participate at least one Autumn Quarter in Marching Band and One Winter Quarter in Varsity Band (preferably on a minor instrument).

Option 2: Vocal Music Dominant Area, 45 hours:

	hours
L.D.S. Church Organization & Administration 157, 161, 162 (Religion credit, 6 hours)	
Music Education 126, 128	6
Musicology 184, 185	6
Music Theory 21, 22, 23	15
Music Applied, private instruction (voice)	12
Music Applied, Ensemble (choral)	6

Music Teaching Minor:

Option 1, Instrumental Music Dominant Area, 28 hours:

Prospective secondary teachers who desire a teaching minor in music (instrumental) must present credit in the following courses: Music General 1 or Musicology 184, 3 hours; Music Theory 21, 5 hours; Music Applied, Ensembles (band, orchestra), 6 hours total; L.D.S. Church Organization and Administration 157 and 161, 4 hours total; plus ten hours from the following courses: Music Education 110, 111, 112, 115, 116, 117, 125, Music Applied 79-, 80-, 81-p.

Option 2, Vocal Music Dominant Area, 28 hours:

Prospective secondary teachers who desire a teaching minor in music (vocal) must present credit in the following courses: Music General 1 or Musicology 184, 3 hours; Music Theory 21, 5 hours; Music Applied, Ensembles (chorus), 6 hours; L.D.S. Church Organization and Administration 157 and 161, 4 hours total; plus ten hours from the following courses: Music Education 126, 128, Music Applied 79-, 80-, 81-p.

Option 3, Instrumental-Vocal Music, 29 hours:

Prospective secondary teachers who desire a teaching minor in music (instrumental-vocal) must present credit in the following courses: Music General 1, 3 hours; Music General 11 or Music Applied 79-p (piano), 2 hours; Music Education 4, 105, 106, 3 hours total; Music Education 110 and 111, 6 hours total; Music Theory 21, 5 hours; Music Applied, Ensembles (band, chorus, orchestra), 6 hours total; L.D.S. Church Organization and Administration 157 and 161, 4 hours total.

Languages:

Teaching Major: 30 hours upper division work. Two units of entrance credits or lower division courses 1, 2, 3, will enable a student to begin upper division classes.

First year	1, 2, 3
Second year	101, 102, 103
Third Year	111, 112, 113

Fourth year—To make upper division courses reach a total of 30 hours, selection may be taken from 121, 122, 123, 131, 132, 133. Consult with the department for equivalent courses.

Teaching minor: 20 hours upper division work, which must include 123 or its equivalent. Enough study and experience to make a success of teaching must be shown.

TEACHER PLACEMENT

Placement of teachers is a function primarily of the University Placement Office, which works in close collaboration with the College of Education. All students are required to register in the Placement Office as a prerequisite to registration for Student Teaching, whether they have positions already assured or not. Registration before leaving the campus enables the Office to be of Service at later dates as new opportunities or new needs arise.

THE LABORATORY SCHOOLS

Director: Asahel D. Woodruff (118 McKay)

The Laboratory Schools (Kindergarten to the twelfth grade) are maintained by the College of Education to assist in the preparation of teachers and in the improvement of educational programs. Students may secure valuable experiences there as part of their preparation for teaching. The Laboratory Schools are also intended to furnish a setting for research in child development, in learning, in social processes, and in the planning and conducting of educational programs. Use of these facilities is under the supervision of the Director of Laboratory Schools, who should be consulted by faculty members and students who are interested. Individuals are requested to avoid going into classes or other facilities of those schools without making adequate clearance with the Director and the Principals.

In keeping with the laboratory functions of the school, students will frequently be under observation and study, and the classes in the school are subject to various kinds of experimental treatment for the purpose of improving instruction. Regardless of these functions, however, the instruction will always be kept at a high level of quality, since one of the principal purposes of the school is to demonstrate superior educational practices for the benefit of teachers-in-training and teachers-in-service.

Moral and religious education are a constant part of the instruction of these schools. Students are admitted under the assumption that they will adhere to L.D.S. Church standards for personal conduct, dress, and morality. Observance of these standards are requirements for continued enrollment in the Laboratory Schools. Students are also required to observe the Utah compulsory school attendance law.

Enrollment in each grade of the Laboratory schools is limited to the number of pupils who can be adequately cared for. Students are enrolled on the basis of priority of application and in conformity with the need for maintaining certain balances among pupils which are important to the laboratory functions of the school. Applications for admission should be filed with the principal of the school to which admission is sought. Forms for this purpose are available in the office of each principal and also in the office of the Director.

Pupils who have been admitted may continue their schooling to the point of graduation from one of the colleges of the University if they so desire, make normal progress, and observe the standards of conduct of the school. They have all the advantages of the University plant, such as the use of the libraries, gymnasiums, laboratories, shops, athletic fields, auditorium, etc. The educational welfare of the students is safeguarded by an enriched curriculum.

Elementary Laboratory School

The Elementary Laboratory School covers the range from the kindergarten through the first six grades.

A staff of well-qualified instructors, together with the facilities offered by the University and the assistance given by student assistants and special supervisors, provides a wide range of experiences for the children. Much attention is given to individual needs and interests and to the development of special abilities.

The school serves as a laboratory in modern school practice for the preparation of teachers in the field of Elementary Education and for the use and observation of current educational theory.

Secondary Laboratory School

JUNIOR HIGH SCHOOL

Pupils completing the first six grades are regularly transferred to the Junior High School. Here departmentalization begins, permitting of variation in courses and a wide range of contact with expert instructors. A maximum of four units plus one year of religion credit will be allowed for ninth year work to count toward filling group requirements and toward graduation from the Senior High School for those pupils coming from schools which do not maintain a Junior High School.

SENIOR HIGH SCHOOL

Students completing the three years of work prescribed for the Junior High School are admitted to the Senior High School.

Students graduating from the Senior High School will be expected to complete 16 units in three years. Equal credit will be given in all subjects for equal amounts of time spent in the classroom. A course followed for thirty-six weeks with classes meeting five times a week will give one unit of credit. All the constants prescribed must be included in the program of each student.

AIMS AND REGULATIONS

It is the purpose of the high school to develop in its students habits of regularity, punctuality, and industry. Willing and serious application to the tasks at hand is considered of fundamental importance in meeting life situations. It is the aim of the school to have students work vigorously during the day in order to develop the above qualities and to minimize home preparation of lessons. To achieve these aims, the following regulations apply to those enrolled:

(1) Students will be held accountable to the school at all times from the beginning of the school day schedule until the end. A student is expected to register for regular class work each period of the day. Permission should be obtained from the teachers and the principal if students are required to leave the school at any time during the day. Special permission should be obtained prior to the departure.

(2) All students are required to register for Religion. Students who fail to do satisfactory work in their courses in any department will not be permitted to remain at this school.

(3) Students are required to take the regulation courses in physical education during residence at this school. Students are released from this requirement only upon statement of physical disability signed by a physician. Satisfactory grades in physical education courses are required for graduation.

HIGH SCHOOL ACTIVITIES

Under the direction of the faculty and the student body organization, an adequate program of athletic and social activities is provided for the junior and senior high school students.

All high school groups have regular social gatherings and recreational activities under faculty supervision and guidance. They have activities in athletics, debating, public speaking, and essay writing. Each year the school produces several dramatic and musical programs. The school is a member of the State High School Debating Association and the Utah High School Activities Association. In addition to these opportunities for extra-class activities, a regular High School Student Body organization is maintained with the various activities that naturally are sponsored by such organizations. The high school students have also the advantage of participation in the regular activities of the University student body.

CREDIT

Those classes which meet five days each week for a full fifty minutes, and which continue for the full school year of thirty-six weeks of actual class work carry one unit of credit.

Students who register late or who discontinue before the end of the school year or miss a portion of their work during the school year can receive no higher grade than "Incomplete" until the required work of the course is completed. An incomplete grade carries no credit. Such a grade may be removed within the following six-week term and credit received.

ACCREDITATION

Brigham Young University High School meets all requirements of the Utah State Board of Education. It is accredited by the Northwest Association of Secondary and Higher Schools.

Secondary School Curricula

JUNIOR HIGH SCHOOL

Core Curricula

It is the philosophy of the Junior High School that certain areas of work should be organized around student needs into a core program. By having students remain with one teacher for a two-hour period, it is believed that greater strides may be made in guiding the pupil in solving his personal problems, in integrating his school activities with those which he carries on in the community, in developing a wholesome personal outlook, and in the development of basic skills and acquisition of factual knowledge commensurate with his level; therefore, core curricula have been set up in the seventh, eighth, and ninth grades.

7th Grade Subjects:

Constants: Physical Education, Core Curriculum (English, Social Studies, and Religion), Mathematics, Music or Band, Art, Speech, Industrial Arts, Homemaking.

8th Grade Subjects:

Constants: Physical Education, Core Curriculum (English, Social Studies, and Religion), General Science, History, Mathematics, Music or Band, Speech, Art, Industrial Arts, Homemaking.

9th Grade Subjects:

Constants: Art, Physical Education, Core Curriculum (English, Social Studies, and Religion), General Science, Mathematics, Music or Band, Homemaking, Industrial Arts.

SENIOR HIGH SCHOOL

Students desiring to graduate from the B.Y.U. High School and to qualify for college entrance at the same time must complete the following requirements.

1. A total of sixteen units is required in grades 10, 11, and 12. A unit of credit is given for any subject that is taken five times a week for 36 weeks.
2. Two years of Physical Education **must** be taken while in the Senior High School, one of which should be taken in the sophomore year. Students who have some physical disability may be excused from this requirement if they have a statement from their family doctor confirming the fact of their disability.
3. One unit of Mathematics selected from Algebra, Geometry, or General Mathematics.
4. Three units of Language Arts.
5. U.S. History and **either** Problems of Democracy **or** Development of Civilizatiion.
6. **One** unit selected from Chemistry, Physics, Physical Science, or Biology.
7. One semester each of two of the following courses: Eugenics, Physiology, Senior Problems.
8. While at Brigham Young High School, the prescribed courses in Religious Education must be followed satisfactorily by all students. One Religion class each year is required.

Special courses may be planned for those high school students who do not intend to be officially graduated from high school or who do not intend to go to college.

Outstanding senior students may, if it is deemed advisable, secure permission from the Principal to take a maximum of 6 quarter hours of college credit each quarter. Under no circumstances may graduation requirements be completed with less than four classes in the Senior year.

SENIOR HIGH SCHOOL COURSES

Subject	Days		Year Taken	Credit
Art I and II	5	Elective	10-12	1 unit
Industrial Arts	5	Elective	10-12	1 unit

Business				
Shorthand, Elem.	5	Elective	11-12	1 unit
Shorthand, Adv.	5	Elective	11-12	1 unit
Typing, Elem.	5	Elective	10-12	1 unit
Typing, Adv.	5	Elective	10-12	1 unit
Bookkeeping	5	Elective	10-12	1 unit
Language Arts				
Composition, Grammar, and American Literature	5	Constant	12	1 unit
Grammar and Literature	5	Constant	10	1 unit
English Literature	5	Constant	11	1 unit
Basic English	5	Constant	9	1 unit
Publications	5	Elective	10-12	1 unit
Journalism	5	Elective	10-12	1 unit
Homemaking				
Home Making	5	Elective	10-12	1 unit
Home Living	5	Elective	10-12	1 unit
Home Management	5	Elective	12	1 unit
Adv. Foods and Clothing	5	Elective	11-12	1 unit
Language				
French 1 or 2	5	Elective	10-12	1 unit
Spanish 1	5	Elective	10-12	1 unit
Mathematics				
Algebra I	5	Elective	10-12	1 unit
Geometry*	5	Elective	10-12	1 unit
Arithmetic (Bus.)	5	Elective	10-12	1 unit
Basic Skills	5	Elective	10-12	1 unit
Algebra II (1 Sem.)	5	Elective	10-12	.5 unit
Music				
Chorus	5	Elective	10-12	1 unit
Band	5	Elective	7-12	1 unit
Physical Education				
Physical Ed. (Girls)		Constant	10-12	1 unit
Physical Ed. (Boys)		Constant	10-12	1 unit
Religious Education				
Religion 1	5	Constant	9	1 unit
Religion 2	5	Constant	10	1 unit
Religion 3	5	Constant	11	1 unit
Religion 4	5	Constant	12	1 unit
Science				
Physics*	5	Elective	11-12	1 unit
Pers. Hygiene (1 Sem.)	5	Constant	11-12	.5 unit
Eugenics (1 Sem.)	5	Constant	11-12	.5 unit
Chemistry*	5	Elective	11-12	1 unit
Botany (1 Sem.)	5	Elective	10-12	.5 unit
Zoology (1 Sem.)	5	Elective	10-12	.5 unit
Biology	5	Elective	10-12	1 unit
Physiology	5	Elective	12	.5 unit

Shop				
Industrial Arts I, II	5	Elective	10-12	1 unit
Social Science				
U.S. History	5	Constant	11-12	1 unit
World History*	5	Elective	10-12	1 unit
Problems in Democracy	5	Elective	10-12	1 unit
Senior Problems	5	Elective	12	.5 unit
Speech				
Speech	1-5	Elective	10-12	1 unit
Advanced Speech	5	Elective	11-12	1 unit
Speech Workshop	5	Elective	10-12	1 unit

*These subjects are only partially elective as either one or the other in each group must be taken.

College of Family Living

Marion C. Pfund and ——————, co-deans

The following departments are in the College of Family Living:

Clothing and Textiles
Economics and Management of the Home
Food and Nutrition
Homemaking Education
Housing and Design
Human Development and Family Relationships

Name: In the selection of a name for this college, the older and more familiar name of Home Economics has been replaced by that of Family Living. Family Living is more comprehensive and more indicative of the broad objectives of the college. The name embraces the economic aspects of the home but also reaches out to include relationships among the members of the family as they live within the home and the community.

Objectives: The program in the College of Family Living is designed to provide educational experiences which will help young men and women:

(1) To understand themselves and their abilities;
(2) To establish attractive and happy homes in which primary consideration is given to the enrichment and strengthening of family life;
(3) To accept the responsibilities of family members as citizens and members of the community; and
(4) To earn a living in a profession related to homes and and families.

These aims are based upon the conviction that abundant living evolves primarily from the happy family. Such objectives have their roots deep within the culture of the L.D.S. people. Family life is the matrix of spiritual development, the foundation of society, and the basic unit of the Kingdom of God.

For most women, marriage and motherhood form the primary focus of their living, even though many women lead a full occupational life for periods before marriage and may have other full occupational periods after the children are grown. For men, the primary focus is achievement in the occupational system; they are expected to be the bread winners throughout life. For the part of her life during which the woman is almost solely wife and mother, her presence in the home will be practically continuous. The father, on the other hand, will be at his job most of the day; his contact with the family must of necessity be less continuous than that of the mother.

The difference in the roles of the husband and wife has definite implication for the education of the two sexes. It suggests that at least in the area of home and family, the woman's preparation may need to be more specific and extensive in several areas of home maintenance and family relationships than is the man's. For most men, current occupational outlets are in fields unrelated to family living. The demands of the field in which he is carrying major work, in order to prepare himself for occupational life after he receives the bachelor's degree, will not permit him to elect many hours of work in the College of Family Living. Ideally, he should have some acquaintance with all the areas that the woman has.

We hope that every student will elect at least one course which will so enrich his life that he will become a better family member. To this end many courses are particularly adapted to meet the needs of men and women students who do not carry major work in a department of the College. Since the number of courses in the Department of Human Development and Family Relationships may be taken to fulfill part of the University requirements in general education for the social science group, many men and women may be attracted to these courses. For the convenience of men students, one-hour courses are given in the departments of Clothing and Textiles and Food and Nutrition in addition to many other courses that would be of interest. If his choice must be narrowed to one course in the College, work in the area of Human Development and Family Relationships would probably be most beneficial. Relationships are important to him, not only in his home and family life but in his occupational life as well. Also, though there is only an occasional vocational outlet in the field of home economics at the present time for a man with a bachelor's degree, men are entering this field as an area of specialization leading to the Master's and Ph.D. degrees in increasing numbers. This is particularly true in the field of human development and family relationships.

Scope: The experiences of family living involve the discoveries of science, the insights of the humanities and the fine arts, and the inspiration of religion and recreation, all taught in other colleges of Brigham Young University. Their resources are used liberally in our endeavor to integrate and organize educational experiences which increase human capacities to participate in effective family and community living.

Curriculum: The curriculum of the college is geared partially to the cultivation of competency in coping with the vital daily activities involved in homemaking; the creation and maintenance of an environment of beauty within the home; the preparation of nutritious meals; the effective use of energy, time and money; the creative use of leisure and the capacity to meet the stresses and strains incident to crises. The broad philosophy of family living, however, goes far beyond the learning of skills, important as they are. The creation of healthy families and happy homes is one of the foremost challenges faced by our society. The daily tasks involved in parenthood constitute one of life's greatest sources of joy, also one of its most important responsibilities. The College curriculum is geared, therefore, to help men and women recognize and meet the challenge and the responsibility towards the end that the joy may be fully realized. "Man is that he might have joy."

To the extent that the needs of today's families are understood, course offerings in the College are related to those needs for both men and women students. Within the framework of the curriculum the entire cycle of family life from infancy to old age is considered. The expectancy of early marriage and parenthood and of large families is faced and discussed. The importance of the role of men as partners in homemaking is increasingly emphasized. The prolonged period in the lives of men and women after children have been reared becomes part of the thinking and planning of the college student. The many patterns of family living, each with its own economic level, educational background, and cultural heritage are considered with a view toward the contribution each can make to our families of today. The important task of preserving and enhancing the integrity of the family is given a primary place. Educational experiences are directed toward the realization of increased understanding of human development and human relationships and toward the realization of increased maturity in personal, family, and community living. The ever-expanding demands made on men and women to participate and assume leadership in the life of the community are stressed.

Professional Opportunities: The course offerings are also designed to supply factual material necessary to prepare students for selected professional service; teaching in specialized areas within educational institutions, and nursery schools; working in community child welfare agencies, departments of recreation, and youth organizations; working in commercial test kitchens, in home service centers and in the field of dietetics; or working in consumer education, in extension service as a home demonstration agent, or in journalism related to the home and family.

Affiliation with the Merrill-Palmer School: The College carries an affiliation with the Merrill-Palmer School of Detroit, Michigan. This school was established 35 years ago when there was little educational endeavor or experience in education for home and family life. The underlying philosophy of the institution is expressed in the quotation inscribed on a tablet in memory of Lizzie Merrill Palmer:

> "I hold profoundly the conviction that the welfare of any community is divinely, and hence inseparably, dependent upon the quality of its motherhood, and the spirit and character of its home."

At present we are privileged to send to Merrill-Palmer School for one quarter two students a year. Programs of study are planned primarily to supplement and augment former studies and experiences. The individual needs of a student are met insofar as possible. For the undergraduate student, a basic course is focused on the development of the individual through a multidisciplinary approach and with special attention to the family. Emphasis is placed on the importance of family life in the development of individuals and on the changes taking place in the social, economic, and political world which affect marriage and the establishment and maintenance of families.

A staff adviser, available always for consultation and conference, assists each student to work out a course of study. The student is guided also by her counselor in the College of Family Living before she leaves campus. Throughout the educational process, individual guidance serves as a means whereby the student's experience may be effectively related to his personal needs and potentialities. Classes and discussion groups are kept small in order to facilitate necessary direction and guidance. Observation and experience are made a vital part of all phases of the program of study and instruction.

Among the special fields represented by the staff at Merrill-Palmer are psychology, sociology, physical health and development, nutrition, psychiatry, gerontology, child development, nursery education, family life and adult education, marriage counseling, mental hygiene, social group work, home economics, religion, and research. Thus, any student in our College who is able to spend one quarter in Detroit will find much of interest to her at Merrill-Palmer School; the experience should be challenging and rewarding.

The entire program is intercultural, and the student body a cross-cultural group coming from many foreign lands as well as from all parts of the United States. A student from Brigham Young University would, therefore, have to be a worthy representative of the Church. She would also need to have an A-B record. Credits earned by undergraduate students are allocated to the various subject-matter fields by the Brigham Young University in terms of our requirements.

GRADUATION

University Requirements. The University believes that educated men and women should have breadth in knowledge and understanding. As a guide toward such attainments a basic unit of 84 credit hours, selected from a wide variety of subjects, is required for graduation. This General Education group includes: Physical Sciences, 9 hours; Biological Sciences, 8 hours; Social Sciences, 15 hours; Humanities and Aesthetics, 15 hours; Religion, 24 hours; English Composition, 9 hours; and Physical Health and Education, 4 hours.

The University requires a minimum of 186 credit hours for graduation: at least 45 hours must be completed in residence; at least 60 hours must carry upper-division credit (courses marked 100 or above); a major of at least 30 hours and a minor of at least 20 hours shall be included. The successful completion of the program leads to a Bachelor of Science degree. If 24 hours of college credit in a foreign language is acquired, a Bachelor of Arts degree may be awarded. Otherwise, the Bachelor of Science degree is given.

College Requirements. Graduates of the College are expected to have some competency in the several areas which, combined, comprise the broad field of home and family. To this end the College requires that among the 186 credit hours required by the

University for graduation, women students shall elect a minimum of 60 and men students a minimum of 50 hours in courses offered by different departments within the College. Among these hours is included the work for the major.

Majors. A student may complete a major in the department of Clothing and Textiles, or Food and Nutrition, or Human Development and Family Relationships, or in the combined departments of Economics and Management of the Home and Housing and Design, by selecting 30 or more credit hours of appropriate work in these departments.

Through the selection of an appropriate group of courses, including some offered in the departments of Homemaking Education in the College, and of Instruction in the College of Education, a student may become certified for the teaching of Homemaking.

A non-departmental major-minor combination is offered in the broad field of Family Living, designated as Family Living, general. Frequently, students who are not certain as to their major interest begin their work with this combination. They are, however, urged to select a departmental major rather than continue with the general program.

A student who is carrying a major in Family Living, general, or in any department of the College shall elect two specified groups of courses, **A** from without, and **B** from within the College.

The courses in group **A**, in addition to serving as a part of the group needed for general education, provide a background for work in the College; thus, they should be elected in the freshman and sophomore years. The courses in group **B** will help familiarize the student with some work in all departments of the College, a desired objective since all are involved in the activities of the home.

A. Courses in departments outside of the College:

			Cr. Hrs.
GER-PS:	Chemistry 2 & 3	Inorganic and Organic or their equivalent	9
	Physics		3

(An exception may be made for majors in the department of Human Development and Family Relationships and the combined departments of Economics and Management of the Home and Housing and Design. They may arrange to fulfill the physical science requirement in other ways.)

			Cr. Hrs.
GER-BS:	Bacteriology 21	General	4
	Zoology 48	Human Physiology	5
GER-SS:	Economics 1	Principles and Problems	5
	Psychology 11	General	5
GER-HA:	Art 10	Theory and Practice in Design	2

B. Courses in departments within the College:

For women the 60 credit hours shall include courses in:

	Minimum Cr. Hrs.
Clothing & Textiles (CT)	4
Economics & Management of the Home (EMH)	3

Food & Nutrition (FN)	4
Housing & Design (HD)	3
Human Development & Family Relationships (HDFR)	6
	20
The major department in the College	30 or more
Any department or departments in the College	enough to make 60 hours or more

For men the 50 credit hours shall include courses in:

	Cr. Hrs.
Economics &Management of the Home	3 to 6
Food & Nutrition (5 or 10 required; another may be elected)	3 to 6
Housing and Design	3 to 6
Human Development & Family Relationships	6
	18
The major department of the College	30 or more
Any department or departments in the College	enough to make 50 hours or more

At least four courses in the first three departments listed with a minimum of 3 credit hours in each department and a minimum total of 12 hours in the three departments is required; also 6 credit hours in Human Development & Family Relationships.

Advisement. Each student registered in the college has a faculty advisor who will give guidance and help in the selection of courses and the planning of a desirable schedule. The advisor will also check the student's academic progress and help him use the resources of the university to the greatest advantage.

We hope that all students will be able to complete a four-year program. If emergencies arise which make such a plan impossible, the first year program is planned so that the student gains some experience in all areas of homemaking as well as in general education.

Suggested programs for departmental majors will be found listed among the departments. A program in the broad field of Family Living, general, is given below. Beginning in their sophomore year, however, students are urged to concentrate in some department, either within or without the College. Thus, at the end of four years of study, they should be ready to earn a living in a field related to homes and families as well as to become effective homemakers and parents.

Family Living, general

Suggested program for a non-departmental major-minor combination:

Freshman Year

	Credits
Religion	6
English (Determined by placement test)	9

Phys. Ed. & Health	4
Chemistry 2, 3 (Inorganic and Organic)	9
Physics or Geology	3
Psychology 11 (General)	5
Art 10 (Theory and Practice of Design)	2
Clothing & Textiles	2-3
5 Elem. Clothing Construction	
or 10 Selection and Care	
or 15 Dress Construction	
Econ. & Mgt. of the Home	2-3
50 Simplification of Household Tasks	
or 65 Consumer in the Market	
Food & Nutrition 10 (Introductory Food and Nutrition)	4
Human Dev. & Fam. Rel.	2-4
40 Child Development I	
41 Observ. in the Human Dev. Lab.	
or 85 Foundations for Marriage	

Sophomore Year

Religion	6
Bacteriology 21 (General)	4
Zoology 48 (Elementary Human Physiology)	5
Economics 1 (Principles & Problems)	5
Clothing & Textiles 25 (Design and Construction)	3
Econ. & Mgt. of the Home 125 (Family Finance)	3
Food & Nutrition	4-8
40* Menu Planning & Meal Service	
105 Fundamentals of Nutrition	
106 Fundamentals of Nutrition, Lab.	
110 Food Preparation	
or 120 Intro. to Experimental Cookery	
Housing & Design	2-5
20 Weaving	
145 Household Equipment	
Human Dev. & Fam. Rel.	2-5
80 (Nursing 7) Family Health & Home Nursing	
101 Experience With Children	
Electives (Optional courses not elected freshman year): Art, Journalism, Business Education and Office Management, Speech, Sociology	6-8

Junior Year

Religion	6
English (Literature)	3
History 80 (The American Heritage)	5
Clothing & Textiles	3-6
60 Textiles	
or 170 Econ. of Cloth. & Household Tex.	
135 Family Clothing	
Econ. & Mgt. of the Home 130 (Home Management)	3
Food & Nutrition	2-6
70 Food Preparation for Large Groups	
140 Menu Planning and Meal Service	
Housing & Design 160 (Home Furnishings)	2

Human Dev. & Fam. Rel.	3-6
120 Dev. and Adjustments during the Middle and Later Years	
160 Achieving Success in Marriage	
Electives (As optional courses not elected sophomore year): Horticulture, Industrial Art, Marketing, Music.	

Senior Year

Religion	6
English (Literature)	3
Clothing & Textiles	3-7
130 History of Costume	
145 Tailoring	
Econ. & Mgt. of the Home 170 (Homemaking Apartment) (required)	4
Food & Nutrition	2-4
145 Nutrition of Mother & Child	
150 Food Preservation	
Housing & Design 175 (Housing)	3
Human Dev. & Fam. Rel 161 (Family Relationships)	3
Electives (As optional courses not elected junior year, Economics, Geography, History.	15-20

*Students who plan to elect Food & Nutrition 110 or 120 should take Food & Nutrition 140, not Food & Nutrition 40.

Informal Instruction

An important aspect of the College of Family Living is the consultant-teaching service offered by it to students who request assistance with problems pertaining to home economics. The program is carried as a cooperative arrangement with Student Personnel Services. The several members of the faculty of the College who serve as consultants have laboratory-offices in Rogers Hall, one of the residences in the Heritage Halls group, and hope to have an office in the basement of the Joseph F. Smith Building, Family Living Center, shortly after the building is completed. Services will then be offered to all students.

Students may consult the instructors for help with such problems as grooming; etiquette; the care, selection, or construction of clothing; the daily tasks of management; the use of equipment; buying, meal planning, or meal preparation for themselves or for groups; and group entertaining. Thus through out-of-classroom informal experiences many men and women, at their own request, are helped to meet practical problems ininvolved in personal and group living and in personal and social development.

College of Fine Arts

Gerrit de Jong, Jr., Dean (240C)

The following departments are in the College of Fine Arts:

Art
Music
Speech and Dramatic Arts

The policy of the University has always provided for a liberal patronage of the fine arts. A constantly growing desire to offer greater opportunities for better coordinated academic and professional growth to those whose inclinations and talents lead them into the various fine arts resulted in the organization of the College of Fine Arts in 1925.

With exceptionally well-prepared faculties, who have received the benefits of extended study in recognized schools and art centers, and adequate physical equipment in all departments, the College of Fine Arts has become favorably known for the artistic and academic work done under its direction.

Any course offered in this college that leads to the baccalaureate degree is the cultural equivalent to other college courses offered in the University, differing from them mainly in respect to the emphasis placed upon the study of the fine arts.

The Art Department offers curricula in Painting, Sculpture, Crafts, Interior Design, Commercial Art, Graphics, and Art for Teachers in the Elementary and Secondary Schools.

The Music Department lists courses in Theory of Music; Musicology; Applied Music, both Instrumental and Vocal; Music Education, for Elementary and Secondary School Teachers; and General Music, for non-music majors.

The Department of Speech and Dramatic Arts lists courses of study in Public Address and Forensics, Radio and Television, Theatre and Dramatic Arts, Speech and Hearing Rehabilitation, Speech Education for Elementary and Secondary School teachers, and General Speech for non-majors.

MAJORS AND MINORS

Majors are selected from the work offered in the abovementioned departments; minors may be selected from them, or from other departments in the University which offer allied work.

Students graduated from the College of Fine Arts receive the degree of Bachelor of Arts.

College of Humanities and Social Sciences

A. Smith Pond, Acting Dean (356 McK.)

The following departments are in the College of Humanities and Social Sciences:

Archaeology
English
Geography
History
Journalism
Modern and Classical Languages
Political Science
Psychology
Sociology

The Humanities are concerned with discovering, preserving, and disseminating the best of man's thoughts and creations. The Social Sciences are a study of the activities and relationships of man; his nature, what motivates him, how his activities progress, his power to communicate, and the relationships of men with each other and with their environment. The Humanities and the Social Science are therefore related disciplines whose purpose is to help man live in the most intelligent and satisfying manner.

The Humanities are the study of what man has created, including his language, literature, art, and the record of his activities as revealed in Archaeology and History. The Social Sciences are younger disciplines utilizing the modern methods of science —controlled observation, laboratory experimentation whenever possible, statistics, and analytical reasoning. Their potential significance for a troubled world is tremendous.

There are two large purposes for which the instructional program of the College of Humanities and Social Sciences is designed. One is the provision of a broad and liberal education, to assist those who obtain it to receive in the fullest measure the values to be found in the complex civilization of today and to contribute to the enlargement of those values in an effective and acceptable manner. The other is the preparation of a more limited group as qualified contributors to the discovery of additional truth to add to our present heritage and as capable professional participants in the regular productive affairs of daily living.

Courses intended to contribute to the first purpose are offered as a service to all students in the University. Career programs for those who choose to do their major work in this college are offered in the Departments of Archaeology, English, Geography, History, Journalism, Political Science, Psychology, Modern and Classical Languages, and Sociology. Departmental advisors stand ready to consult with students in the selection of studies that will contribute most effectively to a broad education, and to specialized training available in each department.

DEPARTMENTAL REGISTRATION

PRE-LEGAL COURSE

Advisors: Stewart L. Grow, Jay B. Hunt, J. Kenneth Davies.

The Association of American Law Schools, which is composed of the leading law schools in this country, makes no specific requirement concerning the content of pre-legal courses of study. It does suggest that a college student should be given a thorough mental training in fundamental subjects. A pre-legal student should lay a foundation for a broad culture, develop intellectual discipline, and cultivate professional standards of study. The more important problems confronting lawyers, judges, and legislators are basically economic, political, and social. A law student should acquire a knowledge not only of legal doctrine and of the judicial processes but also of the above-mentioned fields of study.

The following important advice given by a leading law school may well be brought to the attention of pre-legal students:

"Few ideas are more fallacious or harmful than the notion that it is possible to dawdle through high school and college and then make the adjustment to higher standards promptly upon entering the professional school. Essential habits of concentration and effective methods of study must be acquired and developed during the pre-legal years. Careful reading and the constant exercise of practice in writing should be cultivated assiduously . . . . A large proportion of failures in the professional school may be traced directly to the neglect of opportunities in school and college."

In general, the lawyer's range of knowledge should be as broad as he can make it, and, from that standpoint, there is no single pre-law program that can be called the best one for the purpose. The student should bear in mind that the prime requisite of a successful lawyer is a well-disciplined mind. It must be readily capable of embracing complex situations, identifying subtle distinctions, and appraising arguments. It must be able to weigh opposing considerations and be capable of sustained effort over long periods of time. To produce such a mind, the college schedule should include courses intended to expand the mental powers of a student to the utmost and to bring about precision of thought.

In addition to the courses in general education prescribed by the university in the biological and natural sciences it is sugested that a satisfactory pre-legal course might be selected from the following fields: English, Political Science, History (with special emphasis on American and English constitutional history), Economics, Accounting, Psychology, Public Speaking, Sociology, and Mathematics.

Because of the growing tendency of law schools either to recommend or demand that the entering student have a B.A. or B.S. degree, the pre-legal student should plan his freshman and sophomore programs toward the acquisition of a bachelor's degree.

College of Physical and Engineering Sciences

Harvey Fletcher, Acting Dean (294 PS)

The College consists of six departments, as follows:

- Air Science
- Chemistry and Chemical Engineering
- Engineering Sciences
- Geology and Geological Engineering
- Mathematics
- Physics

The College of Physical and Engineering Sciences is unique in bringing together in to one college the various branches of fundamental physical sciences and of engineering. It provides the fundamental training and stimulation for those who wish to have a career in teaching, industrial work, or fundamental research in any of these fields. It also provides for a large number of service and cultural courses needed by students enrolled in the other colleges of the University.

ENTRANCE REQUIREMENTS

In addition to having fulfilled the general entrance requirements of the University, a student entering the College of Physical and Engineering Sciences should have completed successfully the following high school courses:

- 3 units of English
- 3 units of Mathematics
- 1 unit of Physical Science

Students who have not met these requirements must take extra remedial courses as prescribed by the Chairman of the department of his selected major before, or concurrently with, the regular course of studies outlined for his department.

The outline of courses in the Engineering Sciences constitutes a five-year program and leads to the degree of Bachelor of Engineering Science. Such a five-year program is given for the following five branches of Engineering Science: Chemical, Civil, Electrical, Geological, and Mechanical Engineering Science. During this year (1956-57) the complete courses for all five years for all of these departments will be given.

All of the other departments, except Air Science, have a four-year program which leads to the degree of Bachelor of Science or Bachelor of Arts. A student is not permitted to graduate with a major in Air Science.

A program of courses and the requirements for graduation are given under each department.

College of Recreation, Physical and Health Education, and Athletics

Milton H. Hartvigsen, Acting Dean (200 SFH)

The following departments and areas are in the College of Recreation, Physical and Health Education, and Athletics:

Recreation
Physical Education — Men
Physical Education — Women
Scouting Education
Health Education and Safety
Intercollegiate Athletics
Intramural Sports
Dance

In bringing together the educational areas composing this college, Brigham Young University is following one of the latest and most highly approved trends in the universities of our nation. New opproaches are necessary in view of the changes taking place in our complex civilization in the areas of recreation, scouting, health, safety, physical education, dance and athletics.

The trend to urban life has adversely affected the life of children, but in a sense it has so affected all people. Store windows displaying highly desirable goods tempt children with time on their hands and with limited opportunities for play and recreation to veer dangerously near the precipice of uncontrollable delinquency. A recent report of the Judicial Committee of the United States Senate indicates that of the children born this year one out of ten will be brought to a hearing over violation of law. The problem of delinquency will never be solved if the point of correction or prevention waits until an act is committed. The roots of law-abiding behavior are planted early, probably before the age of ten and most often in the home atmosphere.

Health practices must be established early in life and they, too, must be established in the home. Although the mastery of communicable diseases now seems in sight, new diseases caused by tension, worry, and fear which lead to breakdown are rapidly coming to the foreground.

Education must prepare young people to live adequately and honorably. Only about 7 per cent of the young people will go into the professions—law, education, or medicine. The other 93 per cent will be in relatively humble positions and living in small homes with large families. This group will be the backbone of the nation—the common people whom Lincoln loved so much. Our schools must prepare young people to live full lives on the one hand and yet in an even more important way on the other hand to help lead their children in full living.

The schools have the responsibility of education for all. Brigham Young University, because of its nature, is charged with the responsibility of developing leadership more specifically than other universities of the nation. The Mormon Church has a rich heritage in areas of health practice and in community, church, and family recreation. Leadership has been exerted through scouting programs and the Mutual Improvement Association. Both stake and ward buildings have been built with a rich recreation program in mind. Brigham Young University must not only show interest in leadership of its young people—it must be out in front.

Courses are organized to meet state certification requirements in Utah and other states. A major and minor are offered in the fields of Physical Education, Dance, Recreation,, and Health. In addition to this there is a three-year pre-physical therapy curriculum.

The activities of the College are organized around the following departments:

Department of Recreation. The Department of Recreation has a number of basic functions if it is to fulfill its responsibility to the University, the Church, and the nation. Among the responsibilities specifically recognized are: (1) to prepare professional recreational leaders, (2) to prepare voluntary leaders in wards and communities, (3) to provide recreational activity for students and faculty. These are responsibilities which are recognized by very few universities, but which Brigham Young University must recognize.

Department of Physical Education. The Department of Physical Education is, in fact, two departments—one for men and one for women. One objective is the training of leaders in Physical Education and Coaching. Special courses for women prepare leaders in the Dance, public school teaching, and Church recreation. Courses are also given for the studentbody and a vigorous program of a large variety of activities is sponsored. The number of young men physically fit to serve the nation during World War II challenged the nation. After the war the forgetting process set in rapidly. It is fortunate that vigorous training not only produces men to defend the nation but also to carry on in time of peace.

Department of Scouting Education: The objective of the Department of Scouting Education is to encourage scouting in all of its various phases and aspects. Specifically, it is to prepare professional scout leaders and to assist in the training of volunteer leaders in various wards and communities within the state and nation. To implement this, long-term and short-term courses will be offered on the campus and "in-service" and "pre-service" courses in various areas will be provided off-campus, particularly for scoutmasters and volunteer workers. More professional leadership is needed in scouting and the University proposes to meet this need on as large a scale as possible.

Department of Health Education and Safety. In the Department of Health Education and Safety emphasis is placed on the educational aspects of health and safety. The University Health Center, the home, physicians and dentists, the Public Health Department, and many other groups have a responsibility in health. The Health curriculum deals primarily with the instruction in health. Stress is placed on personal hygiene, sanitation, nutrition, and personal safety practices. Courses will be given for all freshmen and for teachers going to the public schools of the State.

Intercollegiate Athletics and Intramural Sports. It is the determination of Brigham Young University to make all athletics contribute to the educational atmosphere on the campus. The University has no coaches as such. All coaches are faculty members and are judged upon the basis of wholesome leadership and good teaching. Brigham Young University is a member of the Skyline Conference. The rules of the conference forbid commercialization of athletics or encouraging unethical practices. The University is determined that the abuses which have crept into college athletics shall not be allowed on this campus.

A vigorous program of Intramural Sports is organized. Hundreds of students participate in such recreation as basketball, tag football, tennis, badminton, volleyball, horseshoes, archery, cross-country running, handball, golf, swimming, wrestling, bowling, gymnastics, squash, track, and table tennis. An objective is—everyone in some type of recreational sport.

A special evening once a week is set aside so that the townspeople may participate in various sports and games.

Graduate School

George H. Hansen, Dean

General Information

PURPOSE

The Graduate Division of Brigham Young University was established as an administrative unit in 1922, 47 years after the founding of the Brigham Young Academy in 1875. The objective of graduate study was then stated in these terms: "The essential aim . . . is to develop the power to do independent work and to encourage the spirit of research. Each candidate is expected to possess a broad general knowledge of his major subject with less detail in the case of his minor subjects."

Educational institutions such as Brigham Young University reflect the aspirations and problems of the American people. They carry the ideals, dreams, and hopes of democracy from generation to generation. Their ranks must be filled with trained men and women—trained in the skills, the arts, and the sciences and dedicated to a higher spiritual understanding through which all men can work for the common good.

FACULTY OF THE GRADUATE SCHOOL

In the early years, all graduate registration was made through a Committee on Graduate Work. The first Chairman of Graduate Work was appointed in 1925. Since the establishment of the Graduate School in 1929, all graduate study has been under the direction of a Dean.

The faculty of the Graduate School is composed of those who hold the rank of professor or associate professor in all departments offering graduate degrees. Other regular members of the teaching staff of the University are eligible to teach graduate courses and serve as chairmen and members of students' Special Committees if approved by their respective departments and the Graduate Council.

The chief administrative body of the Graduate Faculty is the Graduate Council, which consists of (1) the President of the University, the Dean of the Graduate School, and the Director of Research, ex officio; (2) four members of the Graduate Faculty elected at large for terms of three years; (3) eight members of the Graduate Faculty, one elected from each of the eight Colleges in which there are departments offering graduate work; and (4) one member elected to represent the Division of Religion. The Graduate Council is empowered to act for the Graduate Faculty on all student petitions and on departmental requests for approval of faculty members for graduate instruction and supervision. It is the responsibility of the Graduate Faculty to formulate and recommend requirements for all graduate degrees and to recommend regulations and facilities to promote the scholarly activities and research interests of graduate students.

LIBRARY FACILITIES

The Heber J. Grant Library contains the general library and certain special collections. It includes over 225,000 books, government documents, pamphlets, and bound magazines. Approximately a thousand periodicals are received regularly. Some of the outstanding collections available to students are the Boyle Collection in Geology, the Gates Collection on the History, Archaeology and Linguistics of the Maya Area, the Robert Burns Collection, and the National Welsh Library.

Special Libraries. The Albert C. Boyle Science Library, housed in the Eyring Physical Science Center, includes books and periodicals in physical science, radio, engineering, photography, and antiquities, and an extensive map collection.

The facilities of the L.D.S. Genealogical and Historical Library in Salt Lake City, which contains over 500,000 titles, are available by special arrangement, as are the collections of Utah and Mormon materials in the L.D.S. Church Library in the same city.

SUMMER SESSIONS

Graduate students who do a part of their work at the University during the summer will find a wide range of graduate courses suited to their purposes. A full quarter of work is offered in the summer school, which is divided into two terms so that students may attend only part of the summer if they desire. Graduate students may register for a maximum of nine credit hours per term.

SCHOLARSHIPS, ASSISTANTSHIPS AND FELLOWSHIPS

Scholarships. The University has established the following scholarships for graduate students:

10 scholarships which provide for free tuition and a $500 cash award.
10 scholarships which provide for free tuition and a $300 cash award.
30 scholarships which provide for free tuition.

These scholarships are awarded on the basis of high academic achievement and are available to students in any area of graduate study. Recipients must possess a baccalaureate degree at the beginning of the period for which the scholarship is granted and be a candidate for a higher degree. Applications for the academic year beginning in September should be filed by the preceding March 1. Application forms may be obtained from the office of the Chairman of the Graduate Scholarship Committee.

Teaching and Laboratory Assistantships. Many departments employ graduate students as teaching or laboratory assistants. Assistantships are awarded on the basis of scholastic accomplishment and competence for service. Remuneration is based on the time which is devoted to teaching duties. The stipends vary from $125 to $1800 per year, not including tuition and fees. Application forms and detailed information can be obtained by writing to the chairman of the department in which the applicant wishes to become an assistant.

Research Assistantships and Fellowships. A substantial number of research assistantships and fellowships are available at Brigham Young University. Recipients work part time under the supervision of a faculty member on research projects which are supported by University, government, or private sources. The awards vary from $1,200 to $1,800 per school year, depending upon the type of research and the amount of time devoted to it. Students interested in appointments to research assistantships or fellowships should direct inquiries to the Director of Research or to the chairman of the major department.

Admission Procedure

A bachelor's degree or its equivalent from an accredited college or university is required for admission to the graduate school. Admission is by means of registration permits issued by the University Office of Admissions; application forms will be furnished by that office on request. Official transcripts of credit covering all work at institutions attended must be filed with the Office of Admissions before registration permits can be issued.

Permission to register for graduate work does not in itself imply that the student is accepted or will be accepted as a candidate for an advanced degree. Application for acceptance as a degree-seeking students is a separate and subsequent step to be initiated by the student himself at the Office of the Graduate School.

Admission to the Graduate School On a Degree-Seeking Basis

APPLICATION

After a student has been officially admitted to graduate study by the University Office of Admissions, he is eligible to apply for classification as a degree-seeking student. This is accomplished by (1) completing the application form furnished by the Graduate School Office, and (2) submitting statements of recommendation from three persons who can certify to his fitness for graduate work. At least one recommendation must be from an instructor in the student's major field and at least one from an instructor outside of that field. The recommendation forms are provided by the Graduate School.

As soon as credentials are complete, they will be sent to the Chairman of the Department in which the student proposes to do his major work. There the applicant's fitness for graduate work is considered and recommendations are made if extra course work is required to make up background deficiencies. Such supplementary work may be taken in the University after registration for graduate study. Foreign students especially are urged to correspond with the head of the department concerned to ascertain whether their preparatory work will be acceptable to the department and the Office of Admissions.

GRADUATE RECORD EXAMINATION

All students applying for admission to the Graduate School on a degree-seeking basis are required to take the Graduate Record Examination before registration or early in the first quarter of study. These examinations are administered in Utah and elsewhere four times yearly. For information on dates, registration, and costs, write to Educational Testing Service, Box 27896, Los Angeles 27, California.

The Graduate Record Examination is an educational achievement test for persons entering any field of graduate study. The results are charted and compared with averages of selected groups of graduate students. If a student receives a low score, he may not be admitted as a degree-seeking candidate until he has satisfactorily completed one quarter of graduate work at this University.

General Requirements for Advanced Degrees

SPECIAL COMMITTEE

The student's program and his thesis are pursued under the direction and supervision of a Special Committee consisting of two members selected by the student from his major and minor fields after he has been admitted to the Graduate School as a degree-seeking candidate. The composition of the committee is approved by the head of the department in which the student is to do his graduate work. All faculty members who offer courses carrying graduate credit are eligible to serve as chairmen and members of Special Committees. The candidates shall secure the committee members' acceptances and report them to the Dean on the appropriate form within six weeks of the date of first registration as a degree-seeking student.

A student may change the membership of his Special Committee with the approval of all members of the newly constituted committee and the Dean of the Graduate School. After such a change he reviews his entire program with the new committee.

CREDITS

Amount and Distribution. The master's degree requires the completion of 45 or more quarter hours of credit, at least 30 hours of which must be approved by the Special Committee prior to registration. Courses shall be in the 200 or 300 series, except that up to 15 hours of upper division (100 series) credit may be used if the courses are approved by the Special Committee **at the time of registration.** Such courses must be starred and initialed by the Special Committee Chairman or Department Head on the student's registration card.

At least 23 of the hours must be in the major field and at least 15 in a minor field; at least three-fourths must be of grade B or better, and none may be of a grade lower than C. At least 15 hours in the major field and 10 hours in the minor field must consist of courses for which there is a systematic body of subject matter identified with a given course number such as ordinarily constitutes a formal course. Seminars, special readings, and special problems may not be included in these totals.

Graduate Credit for Seniors. If during the last quarter of the senior year, a candidate for a baccalaureate degree finds it possible to complete all requirements for such a degree with a registration of fewer than sixteen quarter hours of undergraduate credit, he may register with the Dean of the Graduate School for graduate credit to the extent that the total registration shall not exceed sixteen quarter hours during the quarter. Written verification that all requirements have been met must be obtained from the appropriate undergraduate dean and presented to the Dean of the Graduate School prior to such registration. Students who exercise this privilege must be willing to limit their course loads as do graduate students. This is the only condition under which an undergraduate student may receive **graduate** credit for a course and this registration does not constitute admission to the Graduate School.

Transfer Credit. Graduate work up to 15 quarter hours may be transferred from other institutions upon the approval of the student's Special Committee and the Graduate Council. Forms for petitioning for such transfers are available in the office of the Graduate School. Credit transferred must represent work which is a fair and reasonable equivalent of corresponding work in this University.

Extension Credit. A graduate student may earn credit toward the master's degree for courses given through the Extension Division of Brigham Young University provided such courses are approved by his Special Committee and by the Dean and the Graduate Council.

Limitation of Transfer, Extension, and Upper Division Credit.

Not more than 15 quarter hours of combined extension, starred upper division and transferred work may be applied toward the requirements for an advanced degree, and such credit **cannot** be used to reduce the residence requirements to less than the minimum of 30 quarter hours to be completed on the Brigham Young University campus. Extension credit acquired at other institutions and credit gained by special examination and correspondence will not be accepted.

ENGLISH 201

Students whose ability to write clearly and correctly is not deemed satisfactory by the department involved are required to enroll in English 210, a non-credit course in Problems in Thesis Writing. The course is equivalent to two credit hours and is regarded as part of a student's registration for that amount. It should be taken at the earliest possible time.

RESIDENCE

Of the 45 quarter hours required for the master's degree, at least 30 quarter hours of approved courses must be taken in residence on the Brigham Young University campus. Residence shall be defined as registration and attendance in courses, seminars, field classes, or other types of instruction conducted on the campus of the University during a regular quarter.

STUDENT LOAD

No candidate for the master's degree will be permitted to register for more than 16 quarter hours in any one quarter. Teaching assistants and others employed approximately one-half time should limit their loads to not more than 12 quarter hours, and full-time employees to not more than 5 hours. Experience has shown that because of the intensive character of graduate work and the academic grade-point average required, it is usually advisable for graduate students to limit their programs to something less than the maximum permitted when employed on a full or part-time basis.

MASTER'S THESIS

Procedure. The prospective candidate for the master's degree enrolls for a thesis (course 300) in his major department, preferably two quarters before the scheduled completion of his program. A student whose major is English, or Music Theory, or Theatre and Dramatic Art, or Painting and Sculpture, or Design, may substitute for the thesis requirement a piece of creative work. At the beginning of his research or creative work the student must provide the chairman of his Special Committee with an outline or prospectus and secure approval on a form provided by the Graduate School. **He is required to complete at least one full quarter of residence study after the date on which the form and prospects are delivered to the Dean.** A complete, signed, but unbound copy of the thesis must be on file in the office of the Graduate School and with the Chairman of the Special Committee 15 days prior to the final examination and not later than 30 days before graduation.

Style and Form. Kate Turabian, **A Manual for Writers of Dissertations,** shall be used as the guide. Other manuals may be used for supplementary help where needed, but the Turabian manual shall take precedence in any case of difference.

Paper. The first copy of the thesis must be on 16 pound bond, with 100 per cent rag content, with water-marked margins, 1¼ inch on the left and 1 inch in the other margins, the grain of the paper to run the long way of the page. Other copies should be on 100 per cent rag content bond paper, not lighter than 13 pound, and may be without the water-marked margins.

Carbon Copies. Carbon copies must be made with Carter's Midnight Carbon Paper or equivalent, carbons to be changed often enough for acceptable legibility.

Typing. Typing must be done with standard elite or pica type, but not with both; spacing may be either 1½ or double.

Reprints. Should the thesis be published, reprints may be substituted for the typed copies, provided they are in acceptable form for binding.

Binding. For the sake of uniformity, binding must be done through the Students' Supply Association.

Delivery of Theses. The student's responsibility for binding and delivery of the thesis is completed upon submission to the Graduate Dean, a receipt from the Students' Supply Association indicating delivery to it of the original and first and second carbon copies (identified as such in pencil on the title pages), ready for binding, and upon payment of the binding fee.

Abstracts. Each candidate is required to furnish abstracts of his master's thesis, one abstract to accompany each copy of the thesis. The abstract is to have a maximum word limitation of 1400 words and should be bound with the thesis, following the bibliography.

APPROVAL FOR GRADUATION

Securing of approval for graduation and permission to schedule the final examination is the responsibility of the candidate. At the time of registration for courses that will complete all credit requirements for the degree, the student must file with the Dean, on a form provided, a request for such approval. The final examination should not be scheduled until this is obtained.

FINAL ORAL EXAMINATION

The passing of a final oral examination not fewer than fifteen days prior to graduation is required. It is the duty of the student to schedule the final examination after obtaining from the Chairman of his major department the names of the examining committee. Forms are available for this purpose.

The examination is conducted by a committee of five voting members, to be made up of the members of the Special Committee and others appointed by the Chairman of the major department. The Chairman of the Special Committee is in charge of the examination. Four affirmative votes are needed to pass. Other members of the Graduate Faculty may attend the examination and enter the discussion, but they may not vote.

TIME LIMIT

All requirements for the master's degree must be completed within six years from the date when the student registers for the first graduate work which is applied toward the degree.

Degrees

MASTER OF SCIENCE DEGREE

The master of science degree is awarded upon completion of the requirements listed above.

MASTER OF ARTS DEGREE

The master of arts degree is awarded upon completion of the requirements listed above, plus satisfaction of the foreign language requirement for the A.B. Degree.

MASTER OF EDUCATION DEGREE

The master of education degree is awarded upon completion of the requirements for the master of science degree, with the following exceptions: (1) a satisfactory field project (course 301) may be substituted for the thesis, and (2) a total of 45 hours credit shall be presented in addition to the field project.

The project shall be a study of a practical problem in the field of the candidate's interest as a teacher. The problem is selected and developed by the student, subject to the approval of his Special Committee. A prospectus must be filed in the office of the Graduate School at the time of registration for the prpoject. The finished report on the project shall conform to the requirements for a thesis in matters of style, format, and manner of filing. It is recommended that a candidate complete not less than one year as a teacher before beginning the field project.

School of Nursing

L. Bernice Chapman, Director

The basic collegiate program in nursing prepares young men and women to become professional nurses able to fill beginning positions in all the clinical areas of nursing: maternal and child care, medical-surgical nursing, public health nursing, psychiatric nursing, etc. It is expected that these nurses can function productively to contribute to comprehensive patient care, to the prevention of illness, and to the promotion of health through working with patients and with professional and community groups. The program also endeavors to support growth of the individual so that he or she may enjoy a satisfying and useful personal, family, and community life.

The program leads to a Bachelor of Science degree and is planned to meet the requirements and standards for accredited schools of nursing on state and national levels. All instructors are full-time University faculty members and have general and professional educational backgrounds consistent with the academic rank held.

Admission Requirement

Prospective students are advised to take two units of a foreign language, one unit of biology, and one unit of chemistry while in high school.

A student may register in the School of Nursing in the first quarter or may enroll in one of the prescribed courses for general registration and then transfer to the School of Nursing. Students considering nursing as a major should consult the School of Nursing as early as possible.

Eligibility for continued registration in the School of Nursing will be determined by health records, University grades and adaptability to nursing as evidenced in attitudes and skills. An average grade of "C" must be maintained each quarter.

Educational Facilities

Students use the same facilities and have the same cultural opportunities as all other students on the campus. The newest and most effective teaching aids and equipment are provided in the School of Nursing laboratories and classrooms. The facilities utilized for nursing experience change from year to year depending upon the needs of the students and the learning experiences selected by the faculty. At present, clinical experience is provided in the Latter-day Saints Hospital in Salt Lake City, the Primary Children's Hospital in Salt Lake City, the Utah Valley Hospital of the Church of Jesus Christ of Latter-day Saints, in Provo, Utah State Hospital, Utah City-County Health Department, Salt Lake City Health Department, and other community agencies. The hospitals approved by the Joint Accreditation Committee of the American Hospital Association, the American College of Surgeons, and the American Medical Association.

The Latter-day Saints Hospital has a capacity of 347 adult beds and 86 bassinets. It provides clinical fields for the practice of medical, surgical, operating room, obstetric, and pediatric nursing.

The Primary Children's Hospital in Salt Lake City, with a bed capicity of 100 including an isolation unit of 12 beds, provides experience in the care of the child.

The Utah Valley Hospital of the Church of Jesus Christ of Latter-day Saints has a current capacity of 115 beds and 35 bassinets. At the present time these facilities are used for the practice of beginning nursing skills.

Utah State Hospital is used for experience in Psychiatric Nursing.

The Utah City-County Health Department and the Salt Lake City Health Department provide generalized Public Health Nursing program and offer field experience to students in nursing.

FEES

Total educational costs including board, room, and uniforms are borne by the student. See section titled "University Fees" for a listing of general University expenses. An itemized estimate of the costs for a student in the School of Nursing is available upon request.

Curriculum

The curriculum of the School of Nursing is organized to provide a balance of general and professional education. General education courses which partially fulfill University requirements are given in the first three quarters. In the second year, courses in professional nursing are correlated with general education. Nursing courses predominate in the last two years.

The course of instruction covers four academic years plus two summer quarters. Clinical practice is a closely supervised laboratory experience with theory courses given concurrently. Courses which help to develop communication skills, social and civic responsibilities and understanding of human behavior are provided throughout the nursing program.

Students must meet both nursing and general education requirements for graduation. Those students enrolling in the Autumn of 1956 will follow the revised curriculum as stated in the catalog. Students currently enrolled will follow the program previously outlined.

Division of Religion

The President of the University is the Head of the Division of Religion

Sidney B. Sperry, Director of Graduate Studies in Religion (122 S).

B. West Belnap, Director of Undergraduate Division (222 S).

The following departments are in the Division of Religion:

Bible and Modern Scripture
Church History
L.D.S. Church Organization and Administration
Theology and Philosophy

The Division of Religion administers all religious instruction and is responsible for the program of religious activities which is sponsored by the University. Through its departments every student in the University is given the opportunity to benefit from religious instruction.

Students in any college of the University who complete thirty-four quarter hours of religious instruction, which must include at least four hours in each of the above-named departments of the Division of Religion, will receive special recognition for such achievement at the time of their graduation.

It has always been the view of the Church of Jesus Christ of Latter-day Saints that in the training of its youth there should be a proper integration of moral and religious values with secular knowledge. From its inception Brigham Young University, firm in the belief that no life is full and complete unless established upon a sound ethical and religious basis, has offered courses in religion.

Brigham Young University is the University for the Church of Jesus Christ of Latter-day Saints. One of its important aims is to develop its students spiritually as well as scholastically, to enable them to live more rounded and complete lives. The faculty of this institution, therefore, are active members and leaders of the Church, all of whom have a deep spiritual insight and the desire to instill this insight into the students with whom they come in contact.

11 have served or are now serving as Mission Presidents.

33 have served or are now serving in General Auxiliary

Boards of the Church.

15 have served or are now serving in Stake Presidencies.

103 have served or are now serving in Ward Bishoprics.

41 have served or are now serving in High Councils.

252 have served in other various auxiliary, teaching, and priesthood capacities in the Church, and 211 are now teaching in auxiliaries or priesthood quorums.

129 have served or are now on leave serving on foreign missions.

All of the officers of the Air Reserve Officer Training Corps are active members of the Church. Three are now serving as members of Bishoprics. Eight have been on missions, and 16 are now actively engaged in administrative and teaching positions in the Church Auxiliaries.

Extension Division

ADMINISTRATIVE OFFICERS

Ernest L. Wilkinson, President of the University
Harold Glen Clark, Director of Extension
Lynn M. Hilton, Assistant Director
Bliss Crandall, Dean of Admissions and Records
Kiefer B. Sauls, Treasurer

EXTENSION DIVISION COUNCIL

Harold Glen Clark, Chairman; Read H. Bradford, B. West Belnap, Herald R. Clark, Raymond B. Farnsworth, Gerrit de Jong, Jr., Harvey Fletcher, George H. Hansen, Lynn M. Hilton, Wesley P. Lloyd, J. B. Nash, Marion Pfund, A. Smith Pond, Harvey L. Taylor, Clarence Tyndall, and Asahel D. Woodruff.

This council is an advisory body for the Extension Division of the University.

CHAIRMEN AND SUPERVISORS OF EXTENSION ACTIVITIES

Clarence Tyndall, Chairman of Audio-Visual Services
- **Evan Memmott,** Assistant to Chairman
- **Myrna R. Duce,** Receptionist
- **Afton N. Porter,** Film Librarian
- **Lucille Long,** Bookkeeper
- **Gordon J. Forsyth,** Graphic Arts Supervisor
- **Parley Rasmussen,** Recording Engineer
- **Lynn M. Hilton,** Chairman of Adult Education Services
- **Lula Clegg,** Supervisor, Home Study
- **Mercedes Dickey,** Acting Supervisor, Evening School
- **Loree Brown,** Supervisor, Publications
- ...., Supervisor, Lecture
- **R. Max Rogers,** Supervisor, Travel Studies

THE EXTENSION DIVISION

The purpose of the Extension Division to to bring the educational services of the regular University day school to those who are not now receiving them.

The Division was established in 1921. At that time its program combined publicity, off-campus programs, lectures, and community services with the more formal classroom offerings and credit courses both by correspondence and lecture.

Some of these earlier functions have been assumed, in part, by special committees or departments in the University. New services, such as motion pictures and audio aids, have been expanded or added to the Extension Division services.

Full-time employees have replaced those who formerly did extension work during their off-time hours. The extent of the territory served has increased.

Bulletins of information on evening school courses, Home Study subjects, lectures, and publications are available upon request.

The Extension Division is made up of the following services:

Audio-Visual Services
- Film Library
- Graphic Arts
- Recordings
- Film Production
- Film Classic

Adult Education Services
- Evening School
- Off-Campus Courses
- Home Study
- Travel Studies
- Lecture Series
- Non-Credit Courses
- Leadership Week
- Publication Services

All teachers of courses scheduled through the Extension Division, with few exceptions, are members of the regular faculty of the Brigham Young University day school listed in this catalog.

Audio-Visual Services

The Brigham Young University Audio-Visual Center is one of the largest and best-equipped teaching aids centers in the nation. Its purpose is to serve the departments of the University, the various church organizations, and the public schools with the finest materials of instruction that can be obtained. It has a wide selection of educational motion pictures, filmstrips, slides, recordings, charts, graphs, and maps.

A magnetic tape recording library of over 1,300 titles is maintained. This includes such items as Brigham Young University devotional assembly speeches and other important addresses given on campus and valuable radio programs of an educational nature. These are available on a rental basis or can be duplicated for permanent retention.

The collection of religious audio-visual aids covers a wide variety of subjects.

Some entertainment shorts are also available.

The Audio-Visual Center serves as a distribution agency for both the rental and sale of Brigham Young University Motion Picture Department Production releases.

The Audio-Visual Center maintains a consultation service to assist individuals or groups with audio-visual problems.

For further information, write or call the Audio-Visual Center. A catalog listing the materials available, conditions of service, and rental rates will be sent upon request.

Adult Education Services

EVENING SCHOOL

Every week-day evening, classes are conducted on campus in subject matter areas of interest to adults who desire to improve or enrich their lives through part-time education.

Regular college residence credit equivalent to daytime classes is given for all Evening School Classes. Anyone wishing to do so may take a class on a non-credit basis as an auditor.

Veterans are eligible to enroll under the GI Bill if they meet the eligibility requirements of the Veterans Administration.

There is published quarterly a class schedule of all classes offered on the campus including early morning, late afternoon and evening classes. These class schedules, giving detailed information about all procedures, are available free of charge in the office of the Evening School.

The courses listed in the evening school schedule which do not receive eight or more registrations will be cancelled. Students who have registered in cancelled classes will be notified and invited to join classes in which there are a sufficient number of students or given a full refund.

Evening School students will be registered upon payment of $5.00 per credit hour as a tuition fee. This fee does not include health services or student activity privileges. These may be obtained by paying an additional $15.00 per quarter to the Treasurer's Office.

Students who register after the officially scheduled registration days are required to pay a late registration fee of $3.00. Registration is not complete until all fees are paid. (Veterans are required to pay the late fee personally.)

One dollar is charged for each change slip presented after the first week of the quarter, unless the action is caused by the Extension Division.

Each student registered through the Extension Division who discontinues attendance at class MUST use the proper procedure to withdraw by coming to the Extension Center. Otherwise, the student will be given an "Incomplete" mark for the course, which mark will be changed to "Failure" if not removed by the next quarter in residence or in one year, whichever is the sooner.

A pro-rated refund of tuition fees will be made to the people who properly withdraw from evening classes during the first four weeks of the quarter. There is no refund for withdrawals occurring after the fourth week of the quarter.

The time and place of evening school registration are listed in the general school calendar in the front of this catalog.

OFF-CAMPUS COURSES

Many adult groups off-campus make requests for regular credit or non-credit courses to be offered in their locality. A request of this type is filled by scheduling a university teacher to travel to the selected place and conduct the course. Credit courses give Brigham Young University residence credit and may be used to renew a teaching certificate, to apply toward a degree, or to broaden one's intellectual and spiritual horizons. The minimum number of students required for a class is determined by the distance of the class from the campus.

Brigham Young University credit is available to students in off-campus courses sponsored by the University of Utah or Utah State Agricultural College where the course has the prior approval of the Brigham Young University Extension Division, Department Head, and Dean involved. Conversely, courses sponsored by the Brigham Young University Extension Division will register University of Utah and Utah State Agricultural College students where these other institutions approve.

Requests for such courses should be directed to Off-Campus Courses, Extension Division, Brigham Young University. Ordinarily such classes meet one evening a week for eleven weeks. There is a wide choice of courses which may be selected. Courses listed in the body of this catalog, subject to the approval of the dean and department head concerned, may be scheduled off-campus. The usual tuition is $6.00 per credit hour unless the class is far distant from the campus.

HOME STUDY

The Extension Division offers correspondence work, among other services, to aid in widening the educational horizons of the many people who cannot take college work in residence. It is the desire of the Extension Division to assist anyone anywhere who wishes to continue his education. The essential characteristic of Home Study is that the relationship of instructor and student is always individual. The only requirement for registration in Home Study is the assurance to those directing the work that the student is prepared to pursue the course with profit.

Supervised individual instruction from a highly trained instructor has a definite advantage to the correspondence student, but perhaps the greatest advantage comes through the serious application and independent thinking the student must contribute in order to complete his course. His success in the work depends largely upon initiative and eagerness for knowledge and upon the quality of his work.

1. Credit. Correspondence courses are not a short cut. With few exceptions each course carries credit equivalent to the corresponding course given in residence.

Not more than 35 hours of the total 186 required for graduation may be correspondence credit.

No graduate credit can be earned in correspondence courses.

Credits are transferable to other standard institutions upon the same basis as standard credits are received at the Brigham Young University.

2. Registration. Students may register for Home Study courses at any time during the year. The Home Study catalog contains detailed information and application blanks. It may be obtained free of charge by writing to Home Study, Extension Division, Brigham Young University, Provo, Utah. Additional courses are offered every two years with the publication of a new catalog.

A student may not take correspondence work while in residence without the consent of his dean.

A course may be completed at the rate of not more than three assignments per week. The standard length of courses is five lessons per quarter hour.

The State Department of Public Instruction, State Capitol, Salt Lake City, Utah, or the Department of Public Instruction in the state in which the student resides should be consulted about preparing for teacher's certification.

The Registrar's Office, Brigham Young University, Provo, Utah, will give the necessary information on entrance and graduation requirements and transfers of credits.

3. Examinations. Examinations are required in all correspondence courses unless otherwise stipulated. Examinations may be taken in the Extension Division Office, Student Service Center, or elsewhere under the supervision of a responsible school official (principal or superintendent). Examinations will not be given until all lessons are completed.

4. Fees: Tuition Fees. The enrollment fee is $5.00 per quarter hour.

High School Fees. The enrollment for a high school course is $15 for one unit of credit or $8.50 for one-half unit credit.

U.S.A.F.I. Courses. The Extension Division is cooperating with the Armed Forces Institute at Madison, Wisconsin, to provide Brigham Young University Home Study courses at a reduced cost to men and women who are on active service in the Army, Navy, Air Force, Marine Corps or Coast Guard. Members of the armed forces who wish to enroll for such courses should contact the education officer or write directly to Home Study, Brigham Young University, Provo, Utah, for specific instructions and fees for approved courses.

Veterans. The Brigham Young University is approved by the Veterans Administration to offer correspondence courses under the G.I. Bill of Rights (P.L. 346, P.L. 16, and P.L. 550).

All veterans should first contact their local Veterans Administration Regional Office and find out whether or not they are still eligible to continue their schooling under the G.I. benefits, and if so what procedures they must follow to do so.

5. Purchase of Textbooks. Textbooks may be obtained through application to Home Study at the time of registration. Required texts should be ordered at this time in order to avoid delay in beginning the assignments.

6. Home Study (Correspondence) Courses:

Accounting

1x,	2x. Elementary Accounting (5-5)	Crandall
105x.	Accounting Practices. (4)	Crandall
150x,	151x. Intermediate Accounting. (5-5)	McIff

Agronomy

20x.	Cereal Crops. (3)	Allred
22x.	Forage Crops. (3)	Allred
41x.	Soils. (3)	Farnsworth
195x.	Soil Fertility. (3)	Hallam

Animal Husbandry

2x.	History of Breeds of Livestock. (5)	Richards
7x.	Feeds and Feeding. (5)	Shumway
21x.	Elements of Dairying. (5)	Richards
90x.	General Poultry. (3)	Morris
154x.	Beef Production. (4)	Richards
156x.	Swine Production. (3)	Shumway

Art

11x.	Basic Design. (2)	Wilson
23x.	Basic Drawing. (2)	Wilson
39x.	Pen Lettering. (2)	Jensen
104x.	Art History and Appreciation. (3)	Wilson
168x.	Art for Elementary Teachers. (3)	Wilson

Bacteriology

1x.	General Bacteriology. (3)	Beck
160x.	Bacteriology and Sanitary Science. (3)	Larson

Botany

3x.	Plant Classification. (5)	Harrison

166x. Conservation of Natural Resources. (3) Christensen

Business Education and Office Management

11x. Gregg Shorthand. (4) Stansfield

31x. Business English. (3) Stansfield

110x. Business Correspondence and Report Writing. (3) Stansfield

178x. Fundamentals af Business Education. (3) Croft

Chemistry

1x. Chemistry. (3) Swenson

Drawing

43x. Elementary Architectural Drawing. (3) Snell

44x. Architectural Drawing. (3) Snell

45x. Architectural Drawing. (3) Snell

47x. Instrumental Perspective. (2) Snell

Economics

1x. Introduction of Economics. (5) Miller

74x. Economic and Financial History of the United States. (5) Miller

Education

110x. Elementary Instruction: Children's Literature. (4) Hammond

160x. Elementary Instruction: Child Growth and Development. (3) Peterson

170x. General Instruction: Health Education for Teachers. (3) Hart

171x. General Instruction: Materials and Methods in Safety Education. (2) Hart

100x. Educational Administration: School Organization and Utah School Law. (3) Barnett

145x. Personnel and Guidance: Guidance Service in Public Schools. (3) Isaksen

100x. Philosophy of Education. (3) M. Clark

116x. History of Education: History of Educational Thought. (3) Parker

Engineering

101x. Engineering Mechanics. (5) Fuhriman

English

1x, 2x, 3x. Composition and Literature. (3-3-3) West

17x. Business English. (3) Stansfield

21x. Advanced English Grammar. (4) West

25x. Vocabulary Building. (4) Young

61x, 62x, 63x. Masterpieces of American Literature. (2-2-2) Thomas

71x, 72x, 73x. Masterpieces of English Literature. (2-2-2) Carroll

118x. Advanced Imaginative Writing. (Credit according to work done) Cheney

131x. The English Novel to 1832. (4) B. B. Clark

132x. The English Novel from Dickens to Hardy. (4) B. B. Clark

133x. The Modern English Novel. (4) B. B. Clark

150x. The Bible as Literature. (3) Thomas

Geology and Geography

Geol. 1x. General Geology. (5) Bissell

Geol. 2x. Physical Geology. (3) Bissell

Geol. 3x. Historical Geology. (2) Bissell

Geol. 106x. Geomorphology. (5) Bullock

Geol. 110x. Materials of Ceramics. (3) Hyatt

Geog. 1x. Elementary Geography. (3) Bullock

Geog. 123x. Economic Geography. (5) Bullock

Health, Physical Education and Recreation

1x. Personal Hygiene. (2) Robison

131x. Theory of Play. (3) Holbrook

134x. Intramural Sports. (2) Soffe

History

1x. History of Civilization. (5) Swenson

104x. Greek History. (3) Swenson

107x. Roman History. (3) Swenson

112x. Close of the Middle Ages. (3) Swenson

121x, 122x, 123x. History of Modern Europe. (3-3-3) Poll

140x, 141x. History of England. (3-3)	Mabey
150x, 151x. History of Latin America. (3-3)	Hunt
153x. History of Mexico. (3-3)	Hunt
155x. History of California. (3)	Fielding
166x. History of Utah. (3)	Poll
180x, 181x, 182x. American History. (3-3-3)	Poll

Home Economics (Family Living)

5x. Fundamental Nutrition. (3)	Thomas
10x. Introductory Foods. (4)	Thomas
11x. Menu and Meal Planning.	Thomas
40x. Child Development. (3)	Morrell
130x. Home Management. (3)	Hinman
140x. Homemaking Education, Methods. (2)	Poulson
150x. Experience with Children. (3)	Morrell
170x. Homemaking Apartment. (4)	Hinman

Horticulture

1x. Principles of Pomology. (3)	Ashton
7x. Floriculture. (3)	Reimschiissel

Journalism

61x. News Writing. (3)	O. Smith
105x. History of Journalism. (5)	O. Smith
106x. Journalism and Society. (3)	O. Smith
111x. Magazine Article Writing. (3)	Butterworth

Library Science

163x. Library Science for Teachers and Administrators. (3)	Knight

Mathematics

1x. Algebra. (5)	Gardner
11x. College Algebra. (5)	Gardner
12x. Plane Trigonometry. (5)	Gardner
13x. Analytic Geometry. (5)	Hales

91x. **Differential Calculus.** (4) Hales

92x. **Integral Calculus.** (4) Hales

107x, 108x, 109x. **Second Year Reading.** (2-2-2) Cummings

MODERN AND CLASSICAL LANGUAGES

French

111x, 112x, 113x. **Third Year Reading.** (3-3-3) Cummings

121x, 122x, 123x. **Third Year Composition.** (3-3-3) Cummings

German

104x, 105x, 106x. **Second Year Grammar and Composition.** (3-3-3) Watkins

107x, 108x, 109x. **Second Year Reading.** (2-2-2) Rogers

111x, 112x, 113x. **Third Year Reading.** (3-3-3) Rogers

121x. 122x, 123x. **Third Year Composition.** (3-3-3) Rogers

Italian

107x, 108x, 109x. **Second Year Reading.** (2-2-2) Cummings

111x, 112x, 113x. **Third Year Reading.** (3-3-3) Cummings

121x, 122x, 123x. **Third Year Composition.** (3-3-3) Cummings

Portuguese

104x, 105x, 106x. **Second Year Grammar and Composition.** (3-3-3) de Jong

107x, 108x, 109x. **Second Year Reading.** (2-2-2) de Jong

111x, 112x, 113x. **Third Year Reading.** (3-3-3) de Jong

121x, 122x, 123x. **Third Year Composition.** (3-3-3) de Jong

Spanish

104x, 105x, 106x. **Second Year Grammar and Composition.** (3-3-3) Wilkins

107x, 108x, 109x. **Second Year Reading.** (2-2-2) Wilkins

111x, 112x, 113x. **Third Year Reading.** (3-3-3) Wilkins

121x, 122x, 123x. **Third Year Composition.** (3-3-3) Wilkins

Music

184x, 185x, 186x. **History of Music.** (3-3-3) Wakefield

Physics

16x.	**Descriptive Astronomy.** (3)	Hales
21x.	**Weather and Climate.** (5)	Hales
26x.	**Elementary Photography.** (3-4)	Hales

Political Science

10x.	**U.S. Constitution.** (5)	Hunt
12x.	**Foreign Governments.** (5)	Caldwell
111x.	**U.S. Constitution.** (5)	Hunt
176x.	**Political Geography.** (3)	Fisher

Psychology

1x.	**Study Habits.** (2)	Moffitt
5x.	**Psychology of Adjustment.** (3)	Howell
11x.	**Survey Course.** (5)	Howell

DIVISION OF RELIGION

Bible and Modern Scripture

11x, 12x, 13x.	**Introduction to Book of Mormon.** (2)	Doxey
23x, 24x, 25x.	**An Introduction to the New Testament and Its Teachings.** (2-2-2)	Bentley
101x, 102x.	**Gospel Teachings from the Old Testament.** (2-2)	Rasmussen
113x.	**The Life of Jesus.** (2)	Gunn
114x.	**The Life and Letters of Paul.** (2)	Gunn
121x.	**Introduction to the Book of Mormon.** (2)	Doxey
131x, 132x, 133x.	**The Doctrine and Covenants.** (2-2-2)	Doxey
138x.	**Pearl of Great Price.** (3)	J. Clark

Church History

101x, 102x.	**Latter-day Saint Church History.** (2-2)	Berrett

L.D.S. Church Organization and Administration

101x.	**Priesthood and Church Government.** (2)	Clark
117x.	**New Methods and Sources in Seeking Forefathers.** (2)	Bennett
118x.	**Advanced Course in Genealogical Research.** (3)	Bennett
141x, 142x, 143x.	**Missionary Approach to the Gospel.** (2-2-2)	Belnap
167x.	**Scout Leadership.** (2)	Bentley

Theology

5x, 6x.	Principles and Doctrines of Mormonism. (2-2)	Riddle
103x.	The Principles, Doctrines, and Philosophy of the Church of Jesus Christ of Latter-day Saints. (2)	Doxey

Sociology

11x.	Elementary Principles of Sociology. (5)	Symons
128x.	Race and Racial Problems. (3)	Larsen
136x.	Community Organization and Leadership. (3)	Dyer
152x.	Population Problems. (3)	Smith
156x.	Rural Sociology. (3)	Payne
170x.	Marriage and the Family. (3)	Bradford

Speech

160x.	Theory of Play Production. (3)	Gledhill
161x.	Stage Craft. (2)	Struthers
180x.	Speech Correction. (3)	Morley

Zoology

175x.	History of Biology. (2)	Tanner
197x.	Genetics and Racial Hygiene. (3)	Tanner

Courses on a Non-credit basis

1nc, 2nc, 3nc.	A Survey Course in the New Testament.	Ricks
4nc, 5nc, 6nc.	A Survey Course in the Book of Mormon.	Ricks

HIGH SCHOOL COURSES

English

Types of Literature. 1 unit or ½ unit.	Mercer

Geography

Economic Geography. 1 unit or ½ unit.	Bullock

History

United States History. 1 unit or ½ unit.	Caine

Mathematics

First Course in Algebra. 1 unit or ½ unit.	Marshall

Second Course in Algebra. 1 unit or ½ unit. Marshall

Plane Geometry. 1 unit or ½ unit. Haupt.

Social Science

Problems in a Democracy. 1 unit or ½ unit. Caine

LEADERSHIP WEEK

This five-day festival of learning is conducted by the faculty and off-campus consultants for the benefit of teachers, officers, community and civic leaders everywhere. Just a few of the activities and offerings which stimulate, inspire, and inform Leadership visitors are instruction in how to teach; how to direct music, drama, and speech activities; how to solve teen-age problems; how to teach in and practice the handicraft arts. Instruction in the Scriptures and lectures from the General Authorities and others also add greatly to the interest and value of Leadership Week.

Housing and food are furnished at moderate prices. The doors of the University are open to all during this week. However, advance registration is necessary to insure housing. The date of the 1957 Leadership Week is June 24-28.

In addition to the general Leadership Week held at the University in Provo each year, local institutes are held by faculty members in other communities upon invitation and the cooperation of the University and upon invitation from the L.D.S. stakes concerned.

TRAVEL STUDIES

The travel-study tours which the Brigham Young University sponsors are designed primarily for students and adults off campus who wish to see and learn more about the most important and best-known sites of historical, cultural, and scenic interest throughout the world.

All of the Brigham Young University travel-study tours are non-commercial, non-profit, educational projects. They are sponsored by a university which recognizes the value of organized educational travel experience, a university which senses the importance of broadening cultural horizons and promoting international understanding and good will.

Opportunities are provided for Brigham Young University travel-study groups to meet Latter-day Saint mission presidents, missionaries, and members of the Church of Jesus Christ of Latter-day Saints who reside in the distant missions of the Church.

College credit is available to tour participants who complete the study program as outlined by the academic department which is co-sponsoring the travel-study tour.

B.Y.U. Travel-Study Tours for 1956

"Student Tour of Europe No. 1"
"Student Tour of Europe No. 2"
"The Peoples and Cultures Tour of Europe"
"Book of Mormon Tour of Central America"
"Student Tour of Mexico"
"World Tour"
"L.D.S. Church History Tour"
"Hawaiian Islands"

Proposed Travel-Study Tours for 1957

"Student Tour of Europe No. 1"
"Student Tour of Europe No. 2"
"The Peoples and Cultures Tour of Europe."
"Book of Mormon Tour of Central America."
"Student Tour of Mexico"
"World Tour"
"L.D.S. Church History Tour"
"Hawaiian Islands"

LECTURE SERIES

The lecture medium is another way of inviting the University with its specialized personnel into a community and its homes. These lectures broaden understanding of our spiritual, social, and scientific world. The Extension Division draws upon the entire faculty, and it sponsors and encourages the creation of lecture series which are most needed and valuable to intended audiences. Successful lectures have been conducted during 1955-56 in the Assembly Hall and Barratt Hall, Salt Lake City, Utah; Alpine School District, American Fork, Utah; Old Ogden Tabernacle, Ogden, Utah; Brigham Young University campus, Provo, Utah; Woodruff Stake, Evanston, Wyoming; Murray Stake, Murray, Utah; Malad Stake, Malad, Idaho; North Box Elder Stake, Brigham City, Utah; and Seattle Stake, Seattle, Washington. If you are interested in scheduling a series of lectures in your community, write or visit the Extension Division. Following is a list of general titles of religious lecture series available. Requests for other lectures which logically can be supplied by the University in any of its branches of learning are invited.

Lectures Available Through Brigham Young University Extension Division

A. **Hugh Nibley**
"The Early Christian Church" (Six lectures)

B. **Sidney B. Sperry**
"A Modern Witness to the Christ" (Five lectures)

C. **Sidney B. Sperry**
"Know Your Doctrine and Covenants" (Five lectures)

D. **Lynn A. McKinlay**
"The Spirit Giveth Life" (Five lectures)

E. James R. Clark
"The Pearl of Great Price Through Forty Centuries" (Five lectures)

F. Glenn L. Pearson
"The Book of Mormon in Its Own Defense" (Five lectures)

G. Lynn M. Hilton
"Judah, Thy God Reigneth" (Five lectures)

H. Roy W. Doxey
"Life After Death" (Five lectures)

I. Samuel C. Chandler
"Great Latter-day Saint Books" (Five lectures)

J. Reid E. Bankhead
"Selected Topics from the Book of Mormon" (Five lectures)

K. Henry L. Nicholes
"Diet and Health" (Five lectures)

L. David H. Yarn, Jr.
"From Darkness Into Light" (Five lectures)

M. Francis W. Kirkham
"A New Witness for Christ in America" (Five lectures)

N. Ivan J. Barrett
"Joseph Smith, the Extraordinary" (Five lectures)

O. Gustive O. Larson
"Mormonism and the American Frontier" (Five lectures)

Publications

All devotional assembly speeches, as well as many lecture series are reproduced in mimeographed form by the Publications of the Extension Division. These are sold at cost.

At the end of each school year complete sets of the assembly speeches are bound in post binders and may be purchased from the Extension Division. These are particularly valuable in ward or home religious libraries.

A few examples of good-selling publications:

Speeches of the Year: "Be Ye Clean" by Elder Spencer W. Kimball. (8½ x 11 mimeographed speeches, 14 pages, 10c)

An Apostle Speaks to Youth: "Chastity" by Elder Mark E. Petersen. (5½ x 8½ printed booklet, 16 pages, 15c)

Know Your Religion Lecture Series: "Know Your Doctrine and Covenants" by Elder Sidney B. Sperry. (8½ x 11 mimeographed series of five lectures, 87 pages, 50c)

Leadership Week Lectures: "Trial of the Stick of Joseph" by Elder Jack West. (8½ x 11 mimeographed series of lectures, 105 pages, 50c.)

Missionaries, teachers in Sunday School classes and other church auxiliaries, classes, speakers, and students of the scriptures find these publications stimulating because of the timely stories, interpretations of current events, and faith promoting experiences presented to the student body of the University.

For full details about available stock and prices, write to the Publications Extension Division, Brigham Young University, Provo, Utah.

L.D.S. Business College

Kenneth S. Bennion, Director

The Latter-day Saints Business College in Salt Lake City became a part of Brigham Young University on June 1, 1952. The College was founded on November 15, 1886, by the L.D.S. Church. It had its beginning in the old Social Hall, which once stood at the entrance to the present Social Hall Avenue between South Temple and First South on State Street. The name at that time was Salt Lake Stake Academy. This was soon changed to Latter-day Saints College, then to Latter-day Saints University, and finally back to Latter-day Saints College. The High School and Junior College Departments were closed in June, 1931. Since that time the Business College has been operated alone.

The first principal of the Salt Lake Stake Academy was Karl G. Maeser, at that time head of the Brigham Young Academy, now Brigham Young University. In direct charge of the school was Willard Done, who soon became principal. Those who have administered the affairs of the school include Willard Done, 1886-88; James E. Talmage, 1888-92; Willard Done, 1892-99; Joshua H. Paul, 1899-1905; Willard Young, 1905-16; Guy C. Wilson, 1916-26; Feramorz Y. Fox, 1926-48; Kenneth S. Bennion, 1948-52 as president, now serving as director; Ernest F. Wilkinson, 1952-.

Very soon after the founding of the L.D.S. College, in 1886, there was developed a commercial department to help young men and women qualify for office positions in Salt Lake City's expanding field of business. The recent affiliation of the L.D.S. Business College with Brigham Young University offers many advantages to students. One of these is that of credit recognition at the parent institution.

Courses are offered to develop proficiency in the following areas: Clerical, Stenographic, Secretarial, Executive Secretarial, Junior Accounting, and Higher Accounting, as well as special training in a wide selection of office machines.

Courses at the L.D.S. Business College parallel those offered at the Brigham Young University. For descriptions of courses, refer to appropriate departments and course numbers indicated in the following list of titles.

Accounting, Lower Division

1. **Elementary Accounting** (5)

2. **Elementary Accounting.** (5)

26. **Office Machines.** (2)

Accounting, Upper Division

149. **Cost Accounting.** (3)

150, 151, 152. Intermediate Accounting. (5-5-5)

187. Municipal and Governmental Accounting. (3)

188. Federal and State Taxes. (4)

194. Auditing Theory and Practice. (5)

Accounting, Graduate Division

280. Advanced Accounting. (5)

296, 297, 298. C.P.A. Coaching. (4-4-4)

Management, Lower Division

35. Mathematics of Business. (3)

Economics, Lower Division

1. Economic Principles. (5)

2. Contemporary Economic Problems. (5)

Finance and Banking, Upper Division

157. Commercial Law. (4)

158. Commercial Law. (4)

Marketing, Upper Division

108. Salesmanship. (2)

Secretarial Training, Lower Division

11. Elementary Shorthand. (4)

12. Elementary Shorthand. (4)

13. Elementary Shorthand Dictation. (4)

14. Shorthand Theory Review and Speed Building. (4)

15. Shorthand Speed Building and Transcription. (4)

21. Elementary Typewriting. (2)

22. Typewriting Speed Building. (2)

23. Typewriting Speed Building. (2)

24. Mechanical Business Letters and Forms. (2)

26. Office Machines. (2)

31. Business English. (3)

Secretarial Training, Upper Division

151. Advanced Shorthand Transcription and Speed Building. (4)

152. Advanced Shorthand Speed Building. (4)

153. Advanced Shorthand Speed Building and Reporting. (4)

154. Office Techniques. (3)

155. Secretarial Procedures and Directed Business Training. (5)

160. Office Organization and Management. (3)

184. Court Reporting. (4)

Sociology, Lower Division

13. Courtship and Marriage. (3)

Division of Religion, Lower Division

4, 5. The Principles and Doctrines of Mormonism. (4-4)

Other courses are offered occasionally, depending upon the demand. Though they are not named above, they parallel courses offered on the campus of Brigham Young University. Some offerings are arranged by the Extension Division of Brigham Young University. In addition, the following non-credit courses are offered:

Beginning Business Mathematics.

Penmanship.

McCune School of Music and Art

N. Lorenzo Mitchell, Director

On September 1, 1952, the McCune School of Music and Art, established in Salt Lake City, Utah, in 1920, became a part of the Brigham Young University. N. Lorenzo Mitchell, the administrator of the McCune School since 1950, continues as the director.

An insistence on the maintenance of high artistic standards since its establishment has given the McCune School an enviable reputation for the contribution it has made to Utah's development in music, art, the dance, and speech. Its faculty is large and represents the highest type of professional and academic training. Many of the leading personalities in the arts are listed with the faculty of the school.

Academically, the work done at the McCune School is in two divisions: (1) The preparatory—that is, all class and individual instruction that does not receive college credit; and (2) the college, wherein college credit is given for class and individual instruction to those students who have met entrance requirements of the University. Any college credit earned at the McCune School of Music and Art may be applied toward graduation from the University with the degree of Bachelor of Arts.

Statistical Summaries — 1955-56

BRIGHAM YOUNG UNIVERSITY 1955-56 CUMULATIVE AUTUMN, WINTER, AND SPRING ENROLLMENT, REGULAR DAY TIME COLLEGE STUDENTS, PROVO CAMPUS ACCORDING TO STATES AND FOREIGN COUNTRIES AS OF MARCH 22, 1956

11 Western States

Utah	4459
California	1445
Idaho	947
Arizona	351
Oregon	269
Nevada	244
Washington	240
Wyoming	154
Colorado	127
New Mexico	106
Montana	82
	8424

28 Foreign Countries

Canada	196
Mexico	42
Guatemala	10
Korea	10
Brazil	7
Iran	7
Japan	5
Great Britain	4
Samoa	4
Finland	3
India	3
Sweden	3
Australia	2
China	2
Denmark	2
Germany	2
Norway	2
Burma	1
Equador	1
Formosa	1
France	1
Greece	1
Honduras	1
North Africa	1
South Africa	1
Spain	1
Tahiti	1
Siam	1
	315

12 Central States

Illinois	54
Michigan	27
Missouri	26
Iowa	22
Wisconsin	21
Indiana	18
Nebraska	16
Kansas	15
Minnesota	13
Ohio	12
South Dakota	6
North Dakota	2
	232

14 Southern States

Texas	57
North Carolina	33
Virginia	31
Florida	22
Georgia	13
Oklahhoma	13
South Carolina	13
Mississippi	9
West Virginia	9
Kentucky	4
Tennessee	4
Alabama	3
Louisiana	3
Arkansas	2
	216

11 New England and Eastern Seaboard

New York	62
Pennsylvania	28
New Jersey	20
Maryland	17
Connecticut	11
District of Columbia	9
Massachusetts	9
Maine	5
New Hampshire	4
Vermont	3
Rhode Island	2
	170

3 Territories

Hawaii	69
Alaska	13
Canal Zone	1
	83

Recapitulation

11 Western States	8424
12 Central States	232
14 Southern States	216
11 New England and Eastern Seaboard	170
3 Territories	83
28 Foreign Countries	315
Grand Total	**9440**

ENROLLMENT SUMMARY — 1955-56
PROVO, UTAH, CAMPUS
AS OF MARCH 22, 1956

College	Freshmen	Sophomore	Junior	Senior	Graduate	Special	Men	Women	Total
Biological and Agricultural Sciences	210	225	177	132	2	7	691	62	753
Commerce	274	264	282	212	1	27	750	310	1060
Education	270	337	382	402	10	29	465	965	1430
Family Living	94	72	77	46	6	16	3	308	311
Fine Arts	167	126	104	89	4	25	254	261	515
Graduate School					294	110	309	95	404
Humanities and Social Sciences	130	166	179	174	3	29	419	262	681
School of Nursing	65	50	35	27		1		178	178
Physical and Engineering Sciences	456	334	271	149	*28	14	1229	23	1252
Recreation, Health, Physical Education and Athletics	79	85	72	76	2	4	203	115	318
Counseling Service	1641	644	107	7	6	133	1309	1229	2538
TOTALS	3386	2303	1686	1314	356	395	5632	3808	9440
Summer Quarter - 1955							1193	905	2098
Total Daytime College Resident Students									11,538
Evening Residence							747	838	1,585
Extension Class and Correspondence							1537	1032	2,569
TOTALS									15,692
Less Duplications, 1955 Summer School									— 1,030
Evening, Extension and Correspondence									— 339
Net Cumulative Total - College Level									14,323
B.Y.U. HIGH SCHOOL									
Junior High School							55	53	108
Senior High School							131	104	235
							186	157	343
B.Y.U. ELEMENTARY SCHOOL							105	106	211
Total B.Y. High and Elementary Schools							291	263	554
TOTAL STUDENTS ON B.Y.U. CAMPUS									14,877

* 5th Year Engineers

L.D.S. BUSINESS COLLEGE
SALT LAKE CITY CAMPUS
AS OF MARCH 12, 1956

	Men	Women	Total
Day School:			
College Level	129	240	369
High School Level	10	20	30
Night School:			
College Level	122	206	328
High School	11	50	61
TOTAL	272	516	788

McCUNE SCHOOL OF MUSIC
SALT LAKE CITY CAMPUS
AS OF MARCH 12, 1956

College Level	79	232	311
High School Level	89	306	395
Elementary Level	120	800	920
TOTAL	288	1338	1626

ENROLLMENT SUMMARY — 1955-56
PROVO AND SALT LAKE CITY CAMPUSES
AS OF MARCH 22, 1956

College Level:	
Daytime Residence Students	
Brigham Young University, Provo, Utah	10,508
L.D.S. Business College, Salt Lake City, Utah	369
McCune School of Music, Salt Lake City, Utah	311
Total Daytime Residence Students	11,188
Evening Residence Students	
Brigham Young University, Provo, Utah	1,442
L.D.S. Business College, Salt Lake City, Utah	328
Total Evening Residence Students	1,770
Extension and Correspondence Students	
Brigham Young University, Provo, Utah	2,374
High School and Elementary School Students	
Brigham Young University High School	343
Brigham Young University Elementary School	211
L.D.S. Business College	91
McCune School of Music	1,315
Total	1,960
*Grand Total of Students on Three Campuses	17,292

* This figure represents total students less 1030 duplications between Summer School and the 1955-56 year.

BRIGHAM YOUNG UNIVERSITY 1955-56 CUMULATIVE AUTUMN, WINTER, AND SPRING ENROLLMENT, REGULAR DAY TIME COLLEGE STUDENTS, PROVO CAMPUS FROM STAKES AND MISSIONS AS OF MARCH 22, 1956

Stakes							
		Denver	45	Gunnison	33	Millcreek	19
Alberta	56	Deseret	75	Highland	23	Minidoka	23
Alpine	143	Detroit	21	Hillside	37	Moapa	34
American Falls	10	Duchesne	16	Honolulu	10	Montpelier	34
Bakersfield	24	East Cache	7	Houston	15	Monument Park	17
Bannock	10	East Jordan	43	Humboldt	15	Moon Lake	14
Bear Lake	10	East Long Beach	53	Hyrum	6	Morgan	8
Bear River	13	East Los Angeles	60	Idaho	18	Moroni	15
Beaver	18	East Mill Creek	34	Idaho Falls	39	Mt. Graham	25
Ben Lomond	19	East Ogden	28	Inglewood	35	Mt. Jordan	54
Benson	16	East Phoenix	33	Juab	41	Mount Logan	6
Berkeley	61	East Provo	336	Juarez	28	Mt. Ogden	16
Big Horn	49	East Rigby	15	Kanab	20	Mt. Rubidoux	47
Blackfoot	18	East Riverside	6	Klamath	22	Murray	22
Blaine	9	East Sharon	168	Kolob	202	Nampa	82
Boise	25	El Paso	18	Lake View	12	Nebo	94
Bonneville	44	Emery	41	Las Vegas	103	Nevada	42
Bountiful	27	Emigration	11	Layton	20	New Orleans	2
Burley	50	Ensign	27	Lehi	66	New York	26
Butte	17	Farr West	11	Lethbridge	38	North Box Elder	20
Cache	2	Florida	9	Liberty	16	North Carbon	16
Calgary	19	Franklin	32	Logan	3	North Davis	18
Cannon	9	Fresno	29	Long Beach	74	North Idaho Falls	39
Carbon	40	Garfield	20	Lorin Farr	30	North Jordan	31
Cassia	16	Glendale	83	Los Angeles	65	North Pocatello	8
Cedar	14	Gooding	29	Lost River	8	North Rexburg	8
Chicago	36	Grand Coulee	28	Lyman	31	North Sacramento	35
Columbia River	41	Granite	26	Malad	29	North Sanpete	45
Cottonwood	37	Grant	15	Maricopa	39	North Sevier	19
Dallas	12	Grantsville	22	Mesa	57	North Tooele	25
Davis	36	Gridley	32	Millard	41	North Weber	10

Nyssa	63
Oahu	24
Oakland	59
Ogden	25
Oneida	33
Oquirrh	17
Orange County	24
Orem	138
Palmyra	178
Palo Alto	67
Panguitch	42
Park	11
Parowan	16
Pasadena	93
Phoenix	40
Pioneer	7
Pocatello	18
Portland	65
Portneuf	11
Provo	211
Raft River	8
Redondo	16
Reno	39
Rexburg	15
Richland	56
Rigby	20
Riverdale	14
Riverside	6
Roosevelt	43
Sacramento	29
St. George	36
St. Johns	37
St. Joseph	19
Salmon River	15
Salt Lake	21
San Bernardino	41
San Diego	67
San Fernando	71
San Francisco	31
San Joaquin	40
San Jose	21
San Juan	50
San Luis	18
Santa Barbara	28
Santa Monica	47
Santaquin-Tintic	33
Santa Rosa	25
Seattle	53
Sevier	58
Sharon	118
Shelley	13
Smithfield	12
Snowflake	67
South Bear River	14
South Blackfoot	24
South Box Elder	21
South Carolina	13
South Davis	15
South Idaho Falls	59
South Los Angeles	54
South Ogden	24
South Salt Lake	16
South Sanpete	22
South Sevier	41
South Summit	40
Southern Arizona	17
Spokane	27
Star Valley	32
Sugar House	21
Summit	9
Tacoma	35
Taylor	44
Taylorsville	11
Temple View	20
Teton	19
Timpanogos	77
Tooele	21
Twin Falls	66
Uintah	73
Union	32
University	17
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Uvada	25
Wasatch	91
Washington	52
Wayne	21
Weber	14
Weiser	36
Wells	16
West Boise	45
West Jordan	46
West Pocatello	26
West Utah	128
Wilford	27
Willamette	35
Woodruff	34
Yellowstone	16
Young	61
Zion Park	19
MISSIONS	
Argentine	1
Australian	2
Brazilian	7
British	2
California	45
Canadian	13
Central American	8
Central Atlantic States	41
Central States	56
Danish	2
East Central States	17
East German	2
Eastern States	62
Finnish	2
Great Lakes	23
Gulf States	16
Hawaiian	24
Japanese	8
Mexican	12
Near East	1
Netherlands	1
New England	24
North Central States	24
Northern California	7
Northern Far East	1
Northern States	42
Northwestern States	51
Norwegian	1
Samoan	3
Southern States	29
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Southwest Indian	9
Swedish	3
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ESTIMATED COST OF STUDENT ATTENDING B.Y.U. FOR THREE QUARTERS 1956-57

Tuition	$135.00
Building, student activity, health, and gymnasium fees - $25 per quarter	75.00
Books and Supplies	60.00
Board and Room	450.00
Personal Expenses	125.00
TOTAL	$845.00

Note: The above estimate of $845 for the total cost of a student attending B.Y.U., with the exceptions noted below, is less than the tuition and fees charged by many private colleges and universities. Thus, a recent study of 84 private schools showed the average tuition and fees (apart from all other expenses) to be $605.

The above estimate does not provide for an automobile or clothing or transportation from distant points. The cost will obviously vary with a married or single student and with young men or young women. For those doing their own housekeeping, either on or off campus, the cost of board and room can be materially reduced. Some students without automobiles have spent for an entire year as little as $700. Others with an automobile have spent as much as $1,500. Except for those who travel back and forth to their homes each day, an automobile is unnecessary and often a hindrance to proper study.